Access DB# 84677

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: B. Shewareged Examiner #: 57633 Date: 01/18/2003
Art Unit: 1774 Phone Number 305-0389 Serial Number: 10/015,978
Mail Box and Bldg/Room Location: CP3 11A03 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Ink jet Recording sheet

Inventors (please provide full names): Eisaku Katoh, Yoshinori Tsubaki
Masayuki Ushiku, Keiji Ohbayashi

Earliest Priority Filing Date: 12/25/2000

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

please search Formula (1) [see claim 8 or 9] in an inkjet recording medium.

(appears to be matching with the inorganics of cls. 3 and 4)

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: EA	NA Sequence (#)	STN $ 260.18
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#) (1)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic (and)	Dr.Link
Date Completed: 1-23-03	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 10	Fulltext	Sequence Systems
~~Clerical Prep Time:~~	Patent Family	WWW/Internet
Online Time: 70	Other	Other (specify)

PTO-1590 (8-01)

What is claimed is:

1. An ink jet recording sheet comprising a non-water absorptive support having thereon an ink absorptive layer comprising polyvinyl alcohol, a cationic polymer, and a compound containing a zirconium or aluminum atom other than zirconium oxide and aluminum oxide,
wherein a surface pH of said ink absorptive layer is 4 to 6 measured 30 minutes after receiving a water based ink of pH range 6 to 9 jetted from an ink jet printer in an amount of 20 ml/m^2.

2. The ink jet recording sheet of claim 1, wherein an average molecular weight of the cationic polymer is between 5,000 and 100,000.

3. The ink jet recording sheet of claim 1, wherein the compound containing a zirconium atom is selected from the group consisting of zirconyl carbonate, ammonium zirconyl carbonate, zirconyl acetate, zirconyl nitrate, zirconium oxychloride, zirconium lactate, and zirconyl citrate.

4. The ink jet recording sheet of claim 1, wherein the compound containing an aluminum atom is selected from the

group consisting of aluminum chloride, basic aluminum chloride, aluminum sulfate, basic aluminum sulfate, and basic aluminum sulfate silicate.

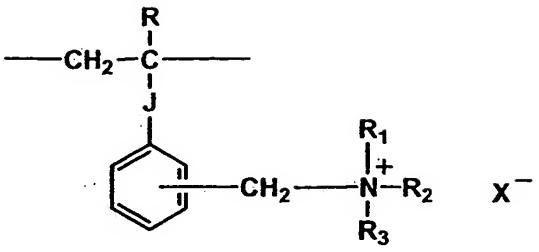
5. The ink jet recording sheet of claim 1, wherein the surface pH of said ink absorptive layer is 4.5 to 5.5 measured 30 minutes after receiving a water based ink of pH range 6 to 9 jetted from an ink jet printer in an amount of 20 ml/m^2.

6. The ink jet recording sheet of claim 1, wherein the ink absorptive layer is a porous layer.

7. The ink jet recording sheet of claim 1, wherein said ink absorptive layer comprises boric acid or a salt thereof in an amount of 2 to 30 millimol per m^2 of said ink absorptive layer, and a surface pH of said ink absorptive layer prior to receiving ink is from 3.5 to 5.5.

8. The ink jet recording sheet of claim 1, wherein said cationic polymer is represented by Formula (1),

Formula (1),



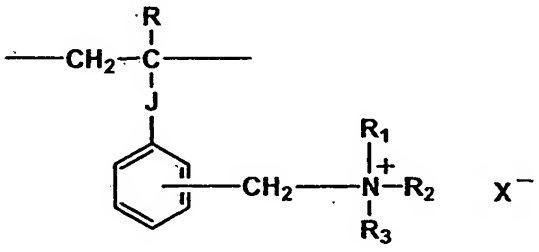
wherein R represents a hydrogen atom or an alkyl group; R_1, R_2, and R_3 each represent an alkyl group or a benzyl group; J represents a bond or a divalent organic group; X^- represents an anion group.

9. The ink jet recording sheet of claim 1,

wherein said ink absorptive layer comprises at least two ink absorptive layers,

wherein said cationic polymer in said ink absorptive layer farthest from said non-water absorptive support comprises a repeating unit represented by Formula (1),

Formula (1),



wherein R represents a hydrogen atom or an alkyl group; R_1, R_2, and R_3 each represent an alkyl group or a benzyl group; J

represents a bond or a divalent organic group; X^- represents an anion group.

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   22 JAN 2003  HIGHEST RN 480390-21-4
DICTIONARY FILE UPDATES:  22 JAN 2003  HIGHEST RN 480390-21-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d his

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                E VINYL ALCOHOL HOMOPOLYMER/CN
L1            1 S E3

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L2            STR

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L4           50 S L2 AND L3
L5         1104 S L2 AND L3 FUL
                SAV L5 SHE978/A

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L6        14578 S INKJET? OR (INK? OR PRINT? OR BUBBL? OR THINK?)(2A)(JET
L7        77456 S L1 OR POLYVINYLALC# OR POLYVINYLALCOHOL# OR POLYVINYL##

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                E POLYVINYL ACETATE/CN
                E VINYL ACETATE HOMOPOLYMER/CN
L8            1 S E3

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L9          1821 S (L8 OR POLYVINYLACETATE# OR POLYVINYL##(2A)ACETATE# OR
L10          764 S L5
L11           22 S L6 AND L10
L12            4 S L11 AND (L7 OR L9)

     FILE 'REGISTRY' ENTERED AT 16:11:36 ON 23 JAN 2003
                  E ZIRCONYL CARBONATE/CN
L13             1 S E3
                  E AMMONIUM ZIRCONYL CARBONATE/CN
L14             1 S E3
                  E ZIRCONYL ACETATE/CN
L15             2 S E3
                  E ZIRCONYL NITRATE/CN
L16             1 S E3
                  E ZIRCONIUM OXYCHLORIDE/CN
L17             1 S E3
                  E ZIRCONIUM LACTATE/CN
L18             1 S E3
                  E ZIRCONYL CITRATE/CN
                  E ZIRCONIUM CITRATE/CN
L19             1 S E4
L20             0 S 77-92-9 AND ZR/ELS
                  E ALUMINUM TRICHLORIDE/CN
L21             1 S E3
                  E ALUMINUM SULFATE/CN
L22             1 S E3
                  E ALUMINUM SULFATE SILICATE/CN
                  E ALUMINUM SILICATE SULFATE/CN
L23             1 S E3
L24            11 S L13-L23

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L25         36660 S L24
L26             0 S L11 AND L25
L27        448325 S PRINT? OR RECORD?
L28           111 S L27 AND L10
L29             0 S L28 AND L25
L30            15 S L28 AND (L7 OR L9)
L31            18 S L11 NOT L12
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L2                STR
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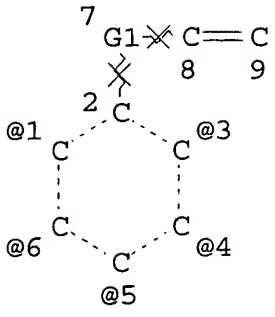

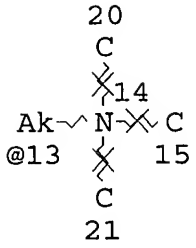

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NSPEC IS RC AT 21
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L3 SCR 1614
L5 1104 SEA FILE=REGISTRY SSS FUL L2 AND L3

100.0% PROCESSED 11383 ITERATIONS (1 INCOMPLETE) 1104 ANSWERS
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FILE COVERS 1907 - 16 Jan 2003 VOL 138 ISS 4
FILE LAST UPDATED: 16 Jan 2003 (20030116/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l12 1-4 cbib abs hitstr hitind

L12 ANSWER 1 OF 4 HCA COPYRIGHT 2003 ACS
135:34394 **Ink jet printing** method.
Sadasivan, Sridhar; Sunderrajan, Suresh; Oakland, Michelle M.; Whittaker, Patrick J.; Samons, Elwood C.; Mollon, Craig Thomas (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1106377 A1 20010613, 8 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-204111 20001120. PRIORITY: US 1999-452396 19991201.

AB The method comprises the steps of (a) providing an **ink jet printer** that is responsive to digital data signals; (b) loading the printer with an **ink jet** recording element comprising a substrate having thereon an image-receiving layer comprising an inorg., anionic pigment, an org., anionic binder and an org., cationic mordant; (c) loading the printer with an **ink jet ink** compn.; and (d) printing on the recording element using the **ink jet ink** in response to the digital data signals. Thus, an image-receiving layer was made from a mixt. of Hydragloss 92 100, Mordant M3 (cationic polymer, 15% solid dispersion) 30, Acronal S 728 10 and nitric acid 1.0 part.

IT **9002-89-5**, **Poly(vinyl alcohol)**
(binders, image-receiving layer; **ink jet printing** method)

RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

$H_2C{=}CH{-}OH$

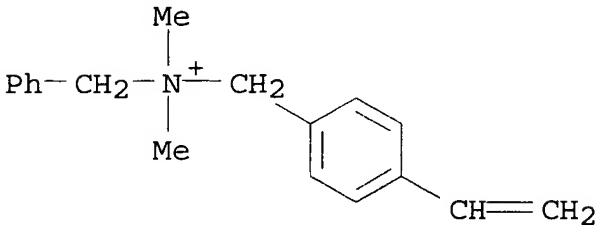
IT **74443-77-9**
(cationic mordants; **ink j t printing** method)

RN 74443-77-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-,

chloride, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

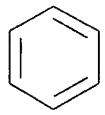
CRN 66099-76-1
CMF C18 H22 N . Cl



● Cl⁻

CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS



2 [D1—CH═CH$_2$]

CM 3

CRN 100-42-5
CMF C8 H8

H_2C═CH—Ph

IC ICM B41M005-00
ICS B41J002-01
CC 42-2 (Coatings, Inks, and Related Products)

ST **ink jet printing** image receiver; cationic mordant **ink jet printing**

IT Styrene-butadiene rubber, uses
(binders, image-receiving layer; **ink jet printing** method)

IT **Ink-jet printing**
Ink-jet recording sheets
(**ink jet printing** method)

IT Kaolin, uses
(pigments, image-receiving layer, Hydragloss 92; **ink jet printing** method)

IT Silicates, uses
(pigments, image-receiving layer; **ink jet printing** method)

IT **9002-89-5**, **Poly(vinyl alcohol)**
9003-20-7, Poly(vinyl acetate) 25767-47-9, Acronal S 728
(binders, image-receiving layer; **ink jet printing** method)

IT 60177-39-1 64798-59-0 **74443-77-9**
(cationic mordants; **ink jet printing** method)

IT 344363-61-7, Mordant M 3
(image-receiving layer; **ink jet printing** method)

IT 13463-67-7, Titanium dioxide, uses 14807-96-6, Talc, uses
(pigments, image-receiving layer; **ink jet printing** method)

IT 9003-55-8
(styrene-butadiene rubber, binders, image-receiving layer; **ink jet printing** method)

L12 ANSWER 2 OF 4 HCA COPYRIGHT 2003 ACS

128:309645 **Ink-jet** recording paper having rapid ink absorption for forming water- and light-resistant images. Kasahara, Kenzo; Saito, Yoichi (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 10100397 A2 19980421 Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-261751 19961002.

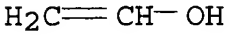
AB The paper comprises a water-nonabsorbing support layer contg. acid-modified gelatin and/or image stabilizers, on which having mordant-contg. layers which fix water-sol. dyes and porous layers having void vol. .gtoreq.90% of vol. of the max. ink ejection value. The mordants may be tertiary amine- or quaternary ammonium salt-based polymers. Thus, a polyethylene-laminated paper support was laminated with (i) base layer contg. mordant 1,4-diethenylbenzene-1-[(4-ethenylphenyl)methyl]-1H-imidazole-styrene copolymer and phenylcarbamoyl-modified gelatin (I) and **PVA**, (ii) a internal layer contg. CaCO3 and **PVA** and of void vol. 20 mL/m2, and (iii) a top layer contg. I and **PVA** showed excellent lightfastness, water resistance, and dryability.

IT **9002-89-5**, **Poly(vinyl alcohol)**
(**ink-jet printing** paper having

porous layers of large void vol. and showing rapid ink absorption)
RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

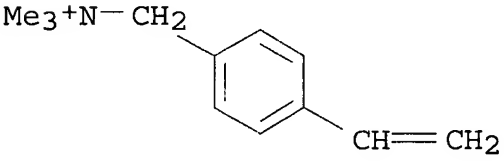
CRN 557-75-5
CMF C2 H4 O

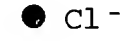


IT **206192-98-5**
(mordants; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
RN 206192-98-5 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with methylene bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

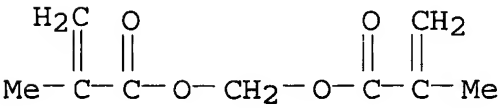
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

CRN 4245-38-9
CMF C9 H12 O4



IC ICM B41J002-01
ICS C09B065-00

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 41, 74
ST **ink jet printing** paper absorption;
tertiary amine polymer mordant printing paper; quaternary ammonium polymer mordant printing paper; phenylcarbamoyl modified gelatin **jet printing** paper
IT Mordants
UV stabilizers
(**ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT **Ink-jet** recording sheets
Ink-jet recording sheets
(paper; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT Gelatins, uses
(phenylcarbamoyl-modified; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT Quaternary ammonium compounds, uses
(polymers, mordants; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT Paper
Paper
(**printing**, **ink-jet**; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT Amines, uses
(tertiary, polymers, mordants; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT Dyes
(water-sol.; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT 3147-76-0
(UV absorbers; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT 99-96-7, p-Salicylic acid, uses
(image stabilizers; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT **9002-89-5**, **Poly(vinyl alcohol)**
(**ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)
IT 178633-08-4 **206192-98-5**
(mordants; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink

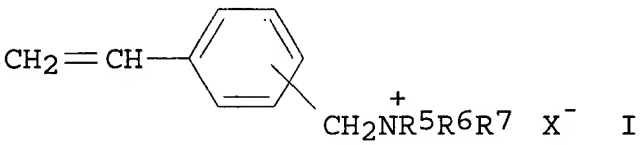
absorption)

IT 471-34-1, Calcium carbonate, uses 7631-86-9, Silica, uses
(porous layer contg.; **ink-jet printing** paper having porous layers of large void vol. and showing rapid ink absorption)

L12 ANSWER 3 OF 4 HCA COPYRIGHT 2003 ACS

124:160424 **Ink-jet** recording material with improved transparency and gloss. Ikeda, Mitsuhiro; Furukawa, Akira; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07257016 A2 19951009 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-48355 19940318.

GI



I

AB The material consists of a support coated with an ink-absorbing layer contg. a water-sol. quaternary ammonium salt-contg. polymer and a layer contg. org. polymer fine particles (ink-absorbing layer coverage ratio 1-50 wt.%) and 1-100 wt.% of an alc.- or water-sol. polymer (<0.3 g/m2). The quaternary ammonium salt-contg. polymer may obtained by polymn. of CH2:C(R1)[C(:O)Q(CH2)nN+R2R3R4.X-, a styrene deriv. I, and CH2:CHCH2N+R8R9R10.X- (R1 = H, Me; Q = O, NH; R2-7 = Me, Et; X- = halo, SO3-, alkylsulfonic acid anion, AcO-, alkylcarboxylic acid anion; n = 2, 3; R8-10 = Me, Et, allyl). The material showed good transparency and water resistance.

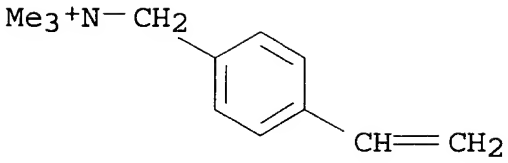
IT **73363-10-7P 173255-43-1P**
(**ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

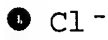
RN 73363-10-7 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

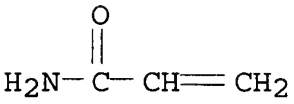
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

CRN 79-06-1
CMF C3 H5 N O



RN 173255-43-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N,N-dimethyl-2-propenamide and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

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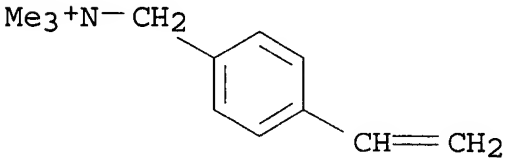
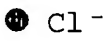
CRN 7538-38-7
CMF C12 H18 N . Cl





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CRN 2867-47-2
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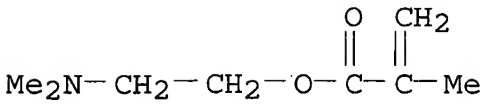

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CRN 2680-03-7
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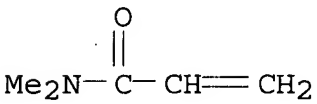

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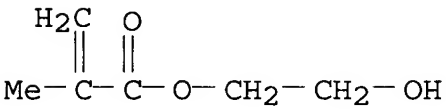
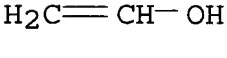


IT **9002-89-5**, **Poly(vinyl alcohol)**
(overcoat layer; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



IC ICM B41M005-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **ink jet** recording quaternary ammonium polymer; transparency **ink jet** recording material; gloss **ink jet** recording material
IT Epoxy resins, uses

(curing agents; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

IT Crosslinking agents
(epoxy resins; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

IT Ionomers
(**ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

IT **Printing**, nonimpact
(**ink-jet**, **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

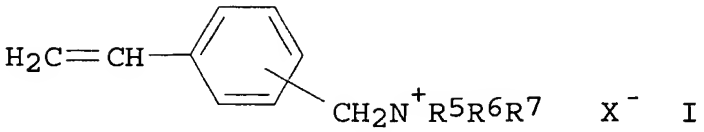
IT 74696-50-7
(curing agents; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

IT 26590-05-6P, Acrylamide-diallyldimethylammonium chloride copolymer **73363-10-7P** 75150-29-7P 172785-52-3P 172785-53-4P 173255-41-9P 173255-42-0P **173255-43-1P** 173255-44-2P
(**ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

IT 9002-88-4, Flo-Beads LE 1080 **9002-89-5**, **Poly(vinyl alcohol)** 9003-01-4, Poly(acrylic acid) 9003-08-1 9003-39-8, Polyvinylpyrrolidone 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9010-77-9, Flo-Beads EA 209 9011-14-7 9012-76-4, Chitosan 25035-72-7, Epostar M 30 28500-83-6, Acrylamide-N-isopropylacrylamide copolymer 138068-10-7, Epostar S 12 156229-01-5, Glossdell M 110 173359-05-2, SBX 3 173359-15-4, Glossdell 1318SX
(overcoat layer; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

L12 ANSWER 4 OF 4 HCA COPYRIGHT 2003 ACS
124:131567 Lustered **ink-jet** recording material with good transparency. Suzaki, Katsumitsu; Furukawa, Akira; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07242056 A2 19950919 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-33697 19940303.

GI



I

AB The recording material comprises a support successively coated with an ink-absorbing layer contg. a quaternary ammonium base-contg. water-sol. polymer and an overcoat layer contg. SiO2 fine particles with ink-absorbing layer coverage 5-50 wt.% and 10-150% (based on SiO2) of a water-sol. and alc.-insol. polymer with coating amt. 0.3 g/m2. The water-sol. polymer may be obtained from CH2:CR1COQ(CH2)nN+R2R3R4.X-, styrene deriv. I, or CH2:CHCH2N+R2R3R4.X- (R1 = H, Me; R2-7 = Me, Et; R8-10 = Me, Et, allyl; Q = O, NH; X = halogen ion, sulfonic acid anion, alkylsulfonic acid anion, MeCO2-, alkylcarboxylic acid anion; n = 2, 3). The material showed good water resistance.

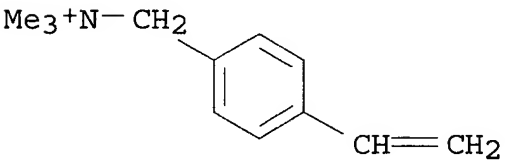
IT **73363-10-7**
(ink-absorbing layer; **ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)

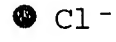
RN 73363-10-7 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

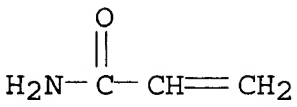
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

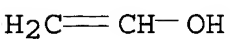
CRN 79-06-1
CMF C3 H5 N O



IT **9002-89-5, Poly(vinyl alcohol)**
(**ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)
RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



IC ICM B41M005-00
ICS D21H019-38; D21H019-44
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
ST **ink jet printing** sheet transparency; luster **ink jet** recording sheet; silica coating **jet printing** sheet
IT **Printing**, nonimpact
(**ink-jet, ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)
IT 7631-86-9, Silica, uses
(Silysia 358; **ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)
IT 26590-05-6, Acrylamide-diallyldimethylammonium chloride copolymer **73363-10-7** 75150-29-7 172785-52-3 173027-26-4
(ink-absorbing layer; **ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)
IT 9003-05-8, Polyacrylamide
(**ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)
IT 79-39-0D, Methacrylamide, polymers 88-12-0, processes 818-61-1D, polymers 923-26-2D, 2-Hydroxypropyl methacrylate, polymers 924-42-5D, N-Methylolacrylamide, polymers 999-61-1D, polymers 2210-25-5D, polymers 2680-03-7D, N,N-Dimethylacrylamide, polymers

2873-97-4D, Diacetone acrylamide, polymers **9002-89-5**, **Poly(vinyl alcohol)** 9005-25-8, Starch, processes 9080-79-9, Poly(styrenesulfonic acid) sodium salt 25549-84-2, Poly(acrylic acid) sodium salt
(**ink-jet printing** sheet coated with silica-contg. water-sol. and alc.-insol. polymer overcoat layer with luster and good transparency)

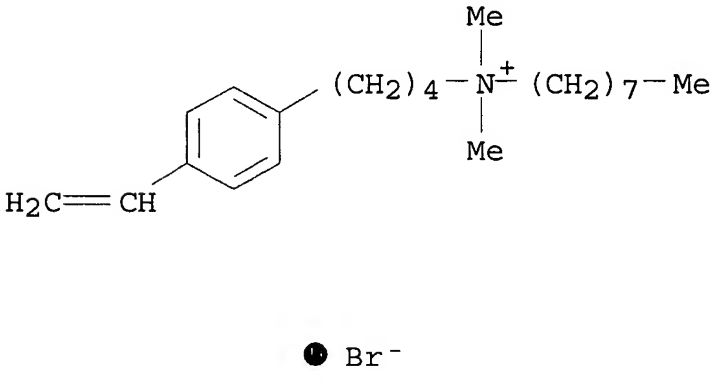
=> d l31 1-18 cbib abs hitstr hitind

L31 ANSWER 1 OF 18 HCA COPYRIGHT 2003 ACS
138:14758 Water-insoluble heat-resistant quaternary ammonium salt polymers. Wakikawa, Kengo; Ueno, Nobuhiko (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2002356513 A2 20021213, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-162308 20010530.

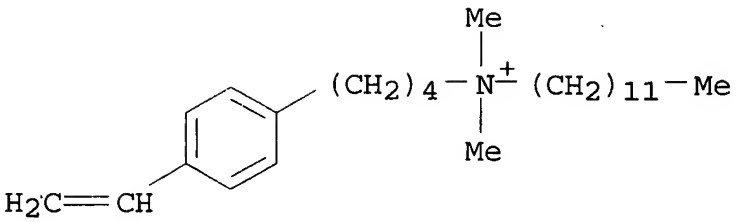
AB The polymers comprise polymers having AN+R1R2R3X--substituted styrene units (A = C3-8 linear alkylene, C4-8 alkoxymethylene; R1-R3 = alkyl, alkanol, aryl; R1-R3 can form hetero atom-contg. (un)satd. rings with bonded N atom; .gtoreq.1 of R1-R3 is C.gtoreq.5 alkyl; X- = ammonium-coordinating counter ions; rings of the styrene units can be further substituted and/or condensed with other arom. rings). Thus, an ethanol soln. of dimethyloctylvinylphenylbutyl ammonium bromide homopolymer was applied on a PET film and dried to give a coating with surface resistivity at 23.degree. and relative humidity 50% 7.61 .times. 109 .OMEGA./square, high transparency, and no stickiness.

IT **477782-20-0P 477782-21-1P 477782-22-2P**
(water-insol. heat-resistant quaternary ammonium salt polymers)

RN 477782-20-0 HCA
CN Benzenebutanaminium, 4-ethenyl-N,N-dimethyl-N-octyl-, bromide (9CI) (CA INDEX NAME)

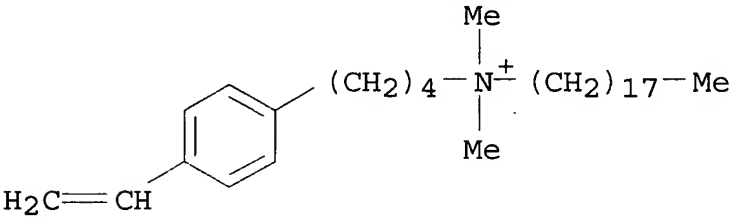


RN 477782-21-1 HCA
CN Benzenebutanaminium, N-dodecyl-4-ethenyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



● Br^-

RN 477782-22-2 HCA
CN Benzenebutanaminium, 4-ethenyl-N,N-dimethyl-N-octadecyl-, bromide (9CI) (CA INDEX NAME)

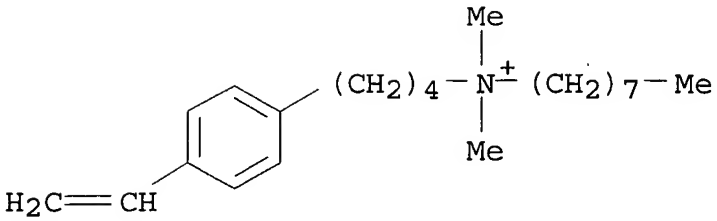


● Br^-

IT **477782-23-3P 477782-24-4P 477782-25-5P**
(water-insol. heat-resistant quaternary ammonium salt polymers)
RN 477782-23-3 HCA
CN Benzenebutanaminium, 4-ethenyl-N,N-dimethyl-N-octyl-, bromide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 477782-20-0
CMF C22 H38 N . Br

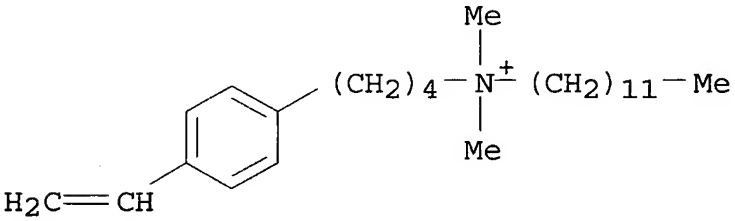


● Br^-

RN 477782-24-4 HCA
CN Benzenebutanaminium, N-dodecyl-4-ethenyl-N,N-dimethyl-, bromide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 477782-21-1
CMF C26 H46 N . Br

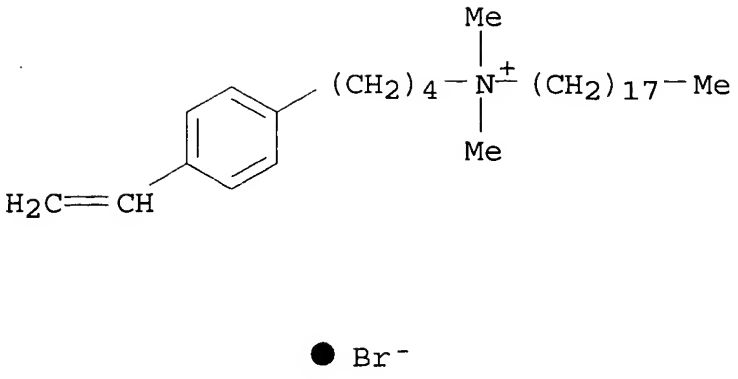


● Br^-

RN 477782-25-5 HCA
CN Benzenebutanaminium, 4-ethenyl-N,N-dimethyl-N-octadecyl-, bromide, homopolymer (9CI) (CA INDEX NAME)

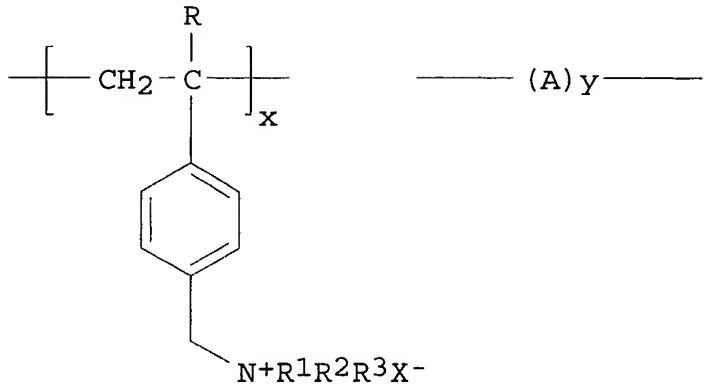
CM 1

CRN 477782-22-2
CMF C32 H58 N . Br



IC ICM C08F012-28
ICS B41M005-00; C07C211-63; C09D011-00; C09K003-16
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38
IT Antistatic agents
Ink-jet recording sheets
(water-insol. heat-resistant quaternary ammonium salt polymers)
IT **477782-20-0P 477782-21-1P 477782-22-2P**
(water-insol. heat-resistant quaternary ammonium salt polymers)
IT **477782-23-3P 477782-24-4P 477782-25-5P**
(water-insol. heat-resistant quaternary ammonium salt polymers)

L31 ANSWER 2 OF 18 HCA COPYRIGHT 2003 ACS
137:331108 **Ink jet** recording sheet containing polymer mordant and anionic compound. Nakano, Ryoichi; Kawasaki, Hiroyuki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002316473 A2 20021029, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-121289 20010419.
GI



I

AB The sheet has an ink receiving layer contg. a polymer with a repeating unit I (R = H, Me; R1-3 = alkyl; X- = anion; A = repeating unit derived from a monomer with an ethylenically unsatd. group; x = 10-100 mol%; y = 90-0 mol%). It prevents cracks and bleeding in storage, showing high surface gloss and improved ink absorbency, color development, light stability, and water resistance of images.

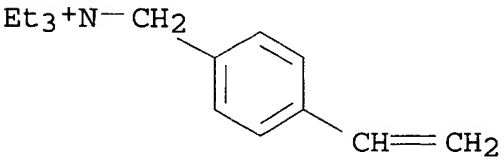
IT **473826-06-1**
(**ink-jet printing** sheet contg. polymer mordant with quaternary ammonium group and anionic compd.)

RN 473826-06-1 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 62858-92-8
CMF C15 H24 N



IC ICM B41M005-00
ICS B41J002-01; C09D001-00; C09D125-18

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST **ink jet printing** sheet polymer mordant; quaternary ammonium compd polymer ink receiving layer; anionic compd ink receiving layer

IT **Ink-jet** recording sheets
(**ink-jet printing** sheet contg. polymer mordant with quaternary ammonium group and anionic compd.)

IT Mordants
(polymer; **ink-jet printing** sheet contg. polymer mordant with quaternary ammonium group and anionic compd.)

IT Quaternary ammonium compounds, uses
(polymers; **ink-jet printing** sheet contg. polymer mordant with quaternary ammonium group and anionic compd.)

IT 142517-79-1P, Boric acid-vinyl alcohol copolymer
(**ink-jet printing** sheet contg. polymer mordant with quaternary ammonium group and anionic compd.)

IT 557-34-6, Zinc acetate 2211-98-5, Sodium p-dodecylbenzenesulfonate 7631-86-9, Silica, uses 190857-28-4, Chemistat SA 101 **473826-06-1**
(**ink-jet printing** sheet contg. polymer mordant with quaternary ammonium group and anionic compd.)

L31 ANSWER 3 OF 18 HCA COPYRIGHT 2003 ACS

136:207712 **Ink-jet** recording sheet containing cationic polymer mordants. Nakano, Ryoichi; Wakata, Yuichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002059641 A2 20020226, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-251516 20000822.

AB The sheet has an ink receiving layer contg. at least inorg. pigments with av. primary particle size .ltoreq.20 nm, a water-sol. resin, its crosslinking agent, and a mordant with a structure (CH2CHQ)n (Q = ANR1R2, NR1R2; A = bivalent linkage; R1, R2 = H, alkyl) and a mordant with structure [CH2CR(p-C6H4N+R3R4R5.X-)]xBy (R = H, Me; R3-5 = alkyl; X- = anion; B = ethylenically unsatd. monomer repeating unit; x = 10-100 mol%; y = 90-0 mol%). It showed no crack, high gloss, and improved ink absorbency, providing images with high resolving power and d., improved light stability and water resistance and without bleeding and yellow stain.

IT **26591-55-9**
(**ink-jet** recording sheet contg. inorg. pigment, water-sol. polymer, and cationic polymer mordants)

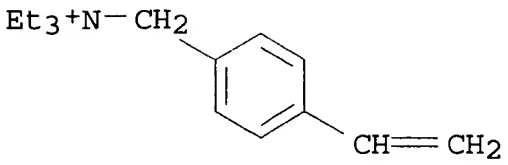
RN 26591-55-9 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 14350-43-7

CMF C15 H24 N . Cl



IC ICM B41M005-00
ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST **ink jet printing** sheet cationic polymer mordant; crosslinked polymer **ink jet printing** sheet; inorg pigment **ink jet printing** sheet

IT **Ink-jet** recording sheets
Mordants
(**ink-jet** recording sheet contg. inorg. pigment, water-sol. polymer, and cationic polymer mordants)

IT 7631-86-9, Aerosil 300, uses
(colloidal; **ink-jet** recording sheet contg. inorg. pigment, water-sol. polymer, and cationic polymer mordants)

IT 142517-79-1P, Boric acid-vinyl alcohol copolymer
(**ink-jet** recording sheet contg. inorg. pigment, water-sol. polymer, and cationic polymer mordants)

IT **26591-55-9** 30551-89-4, Poly(allylamine)
(**ink-jet** recording sheet contg. inorg. pigment, water-sol. polymer, and cationic polymer mordants)

L31 ANSWER 4 OF 18 HCA COPYRIGHT 2003 ACS
135:336946 **Ink jet** recording sheet containing mordant. Kobayashi, Takashi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001301314 A2 20011031, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-115438 20000417.

AB The sheet has an ink receiving layer on .gtoreq.1 side of a support, formed by steps of (1) coating a soln. (A) contg. inorg. pigment particles with primary particle av. diam. .ltoreq.20 nm, a water sol. resin, and a mordant, (2) providing thereon a soln. (B) contg. a crosslinking agent for the water sol. resin and a mordant simultaneously when the soln. (A) is coated or during decreasing drying rate period of a coated layer, and (3) curing a coated layer provided with the soln. (B) by crosslinking, where coating wt. ratio (cp1 : cp2) is (30-1):(1-30) [cp1 = wt. of the mordant from the

soln. (A); cp2 = that from the soln. (B)]. The sheet showed improved ink absorbency, providing images with high gloss and improved color development, light stability, and water resistance.

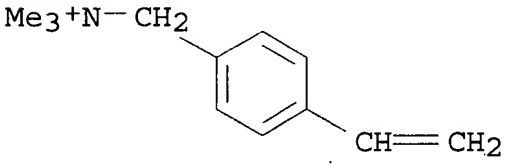
IT **369585-10-4**
(**ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)

RN 369585-10-4 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with ethyl 2-methyl-2-propenoate and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

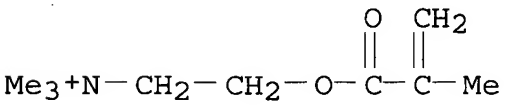
CRN 7538-38-7
CMF C12 H18 N . Cl



● Cl⁻

CM 2

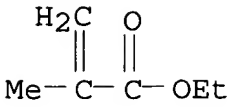
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 3

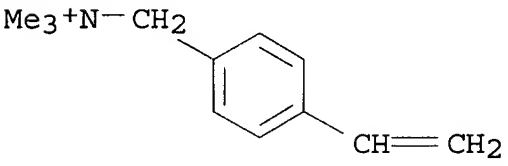
CRN 97-63-2
CMF C6 H10 O2

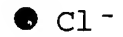


IT **369585-09-1**
(mordant; **ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)
RN 369585-09-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

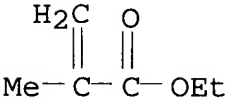
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

CRN 97-63-2
CMF C6 H10 O2



IC ICM B41M005-00
ICS B05D007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **ink jet printing** sheet inorg pigment; mordant water soluble resin crosslinking agent
IT Mordants
(**ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and

mordant)

IT **Ink-jet** recording sheets
(paper; **ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)

IT Paper
(**printing, ink-jet; ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)

IT 7631-86-9, Aerosil 300, uses
(colloidal; **ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)

IT 109720-01-6, Borax-vinyl alcohol copolymer **369585-10-4**
(**ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)

IT 30551-89-4, Polyallylamine 108188-68-7 225794-69-4, Polyfix 700 **369585-09-1**
(mordant; **ink-jet printing** paper contg. inorg. pigment, water-sol. resin, crosslinking agent, and mordant)

L31 ANSWER 5 OF 18 HCA COPYRIGHT 2003 ACS

134:311879 Heat-resistant water-soluble cationic polymers with low amine odor and high basicity and their preparation. Shirai, Hiroyoshi; Kimura, Atsushi; Yasutomi, Masako; Kudo, Keiko; Kubota, Hirohisa (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001114826 A2 20010424, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-297754 19991020.

AB The polymers, useful for antistatic agents and waterproof coatings on **ink-jet printing** sheets, have 1-100 mol% [CH(C6H4AN+R1R2R3X-)CH2] [A = C3-8 alkylene, C4-8 alkoxymethylene; R1-3 = H, alkyl(oxy), hydrocarbyl; X = counter ion]. The polymers are prepd. by polymn. of CH2:CHC6H4AZ (Z = halo, OH, tosyl) and functionalization of the polymers with ammonium salt groups. Otherwise, the polymers are prepd. by polymn. of CH2:CHC6H4AN+R1R2R3X- or CH2:CHC6H4ANR1R2. Thus, 4-(4-bromobutyl)styrene and Me3N were reacted in the presence of diphenylpicrylhydrazyl to give trimethylvinylphenylbutylammonium bromide which provided a cationic polyelectrolyte with Mw 45,000 and cation equiv 3.36 meq/g-polymer.

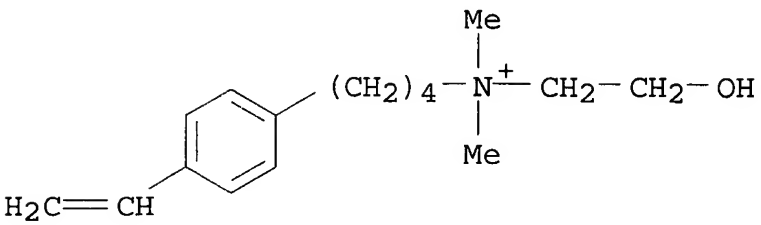
IT **302588-46-1P 302588-50-7P 302588-59-6P 334977-10-5P**
(water-sol. cationic styrene-deriv. polymers with good heat resistance, low amine odor, and high basicity)

RN 302588-46-1 HCA

CN Benzenebutanaminium, 4-ethenyl-N-(2-hydroxyethyl)-N,N-dimethyl-, bromide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 302588-44-9
CMF C16 H26 N O . Br

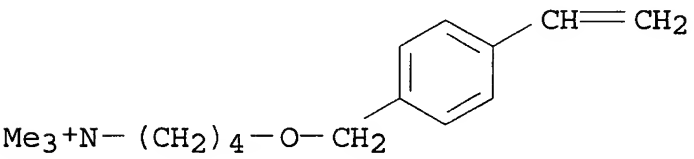


● Br^-

RN 302588-50-7 HCA
CN Benzenebutanaminium, 4-ethenyl-N-(2-hydroxyethyl)-N,N-dimethyl-, bromide, polymer with 4-[(4-ethenylphenyl)methoxy]-N,N,N-trimethyl-1-butanaminium bromide (9CI) (CA INDEX NAME)

CM 1

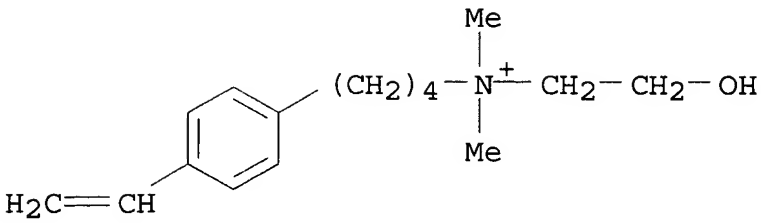
CRN 302588-45-0
CMF C16 H26 N O . Br



● Br^-

CM 2

CRN 302588-44-9
CMF C16 H26 N O . Br

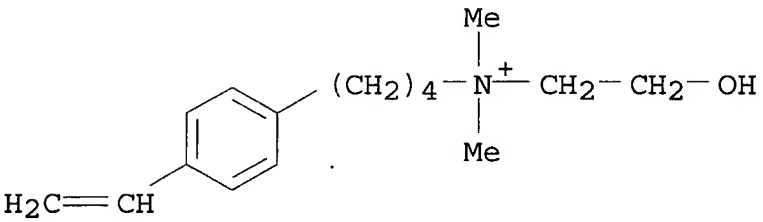


● Br^-

RN 302588-59-6 HCA
CN Benzenebutanaminium, 4-ethenyl-N-(2-hydroxyethyl)-N,N-dimethyl-, bromide, polymer with 4-ethenyl-N,N,N-trimethylbenzenebutanaminium bromide and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

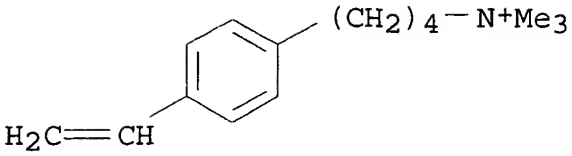
CRN 302588-44-9
CMF C16 H26 N O . Br



● Br^-

CM 2

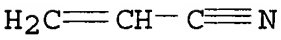
CRN 302588-43-8
CMF C15 H24 N . Br



● Br^-

CM 3

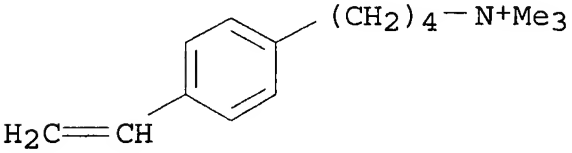
CRN 107-13-1
CMF C3 H3 N



RN 334977-10-5 HCA
CN Benzenebutanaminium, 4-ethenyl-N,N,N-trimethyl-, bromide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 302588-43-8
CMF C15 H24 N . Br



● Br^-

IC ICM C08F012-28
ICS C08F008-30; C08F008-32; C09D005-00; C09D125-18
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 42, 74
ST cationic water sol polyelectrolyte heat resistance; methylvinylphenylbutylammonium bromide polymer antistatic agent; waterproof **ink jet** sheet coating polyelectrolyte
IT **Ink-jet** recording sheets
(coatings for; water-sol. cationic styrene-deriv. polymers with

good heat resistance, low amine odor, and high basicity)

IT **302588-46-1P 302588-50-7P 302588-59-6P**
334977-10-5P 334977-11-6P 334977-13-8P
(water-sol. cationic styrene-deriv. polymers with good heat resistance, low amine odor, and high basicity)

L31 ANSWER 6 OF 18 HCA COPYRIGHT 2003 ACS

131:358297 Lithographic plate, its manufacture, and substrate for it. Sasa, Nobumasa (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 11321143 A2 19991124 Heisei, 29 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-142129 19980508.

AB The substrate comprises a support having a hydrophilic layer contg. microgels and an optional inorg. particles or their composite. An oleophilic imaging layer is imagewise formed on the hydrophilic layer by **ink-jet printing** method to form the lithog. plate. An oleophilic imaging layer is formed by thermal transfer process comprising the steps of (1) contacting a sheet-like thermal-transfer layer on the hydrophilic layer, and (2) imagewise heating from the sheet side to transfer the layer. An oleophilic imaging layer is formed by (1) forming a photosensitive layer (A) on the hydrophilic layer, and (2) imagewise exposing the layer A and removing the exposed or unexposed layer. The obtained lithog. plates are also claimed. The lithog. plate shows good printing durability and gives prints without stain.

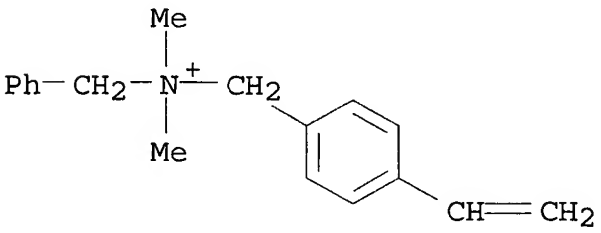
IT **74443-77-9 75009-71-1**
(lithog. plate using substrate having hydrophilic layer contg. microgels)

RN 74443-77-9 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 66099-76-1
CMF C18 H22 N . Cl



Cl^-

CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS

2 [D1—CH═CH$_2$]

CM 3

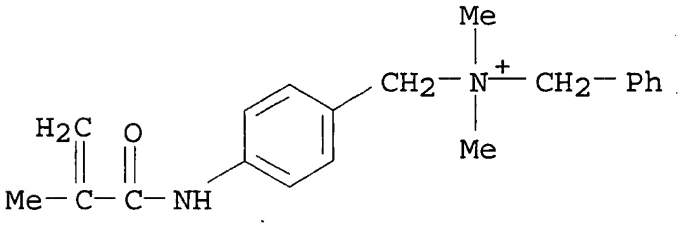
CRN 100-42-5
CMF C8 H8

H_2C═CH—Ph

RN 75009-71-1 HCA
CN Benzenemethanaminium, N,N-dimethyl-4-[(2-methyl-1-oxo-2-propenyl)amino]-N-(phenylmethyl)-, chloride, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

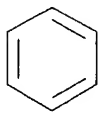
CRN 75009-70-0
CMF C20 H25 N2 O . Cl



Cl$^-$

CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS



2 [D1—CH═CH$_2$]

CM 3

CRN 100-42-5
CMF C8 H8

H_2C═CH—Ph

IC ICM B41N001-14
ICS B41C001-055; G03F007-00; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST lithog plate substrate hydrophilic layer microgel; **ink jet printing** lithog plate manuf; thermal transfer printing lithog plate manuf
IT **Ink-jet printing**
(manuf. of lithog. plate by forming imaging layer by **ink -jet printing** method)
IT 7429-90-5, Aluminum, uses **74443-77-9 75009-71-1** 155430-11-8
(lithog. plate using substrate having hydrophilic layer contg. microgels)

L31 ANSWER 7 OF 18 HCA COPYRIGHT 2003 ACS
130:175334 **Ink-jet printing** material with improved properties. Herrmann, Stefan; Hagemann, Joerg; Helling, Guenter; Strobach, Juergen; Weber, Beate (Agfa-Gevaert A.-G., Germany). Ger. Offen. DE 19752751 A1 19990225, 14 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1997-19752751 19971128. PRIORITY: DE 1997-19736311 19970821.
AB The **ink-jet printing** material comprising a support and at least 2 layers on the same side of the support, the under half of the ink-receptor layer contains diffusion- and smear-resistant **ink-jet** dyes, and

the upper half of the ink-receptor layer contains image stabilizers. The image stabilizers are UV absorbers.

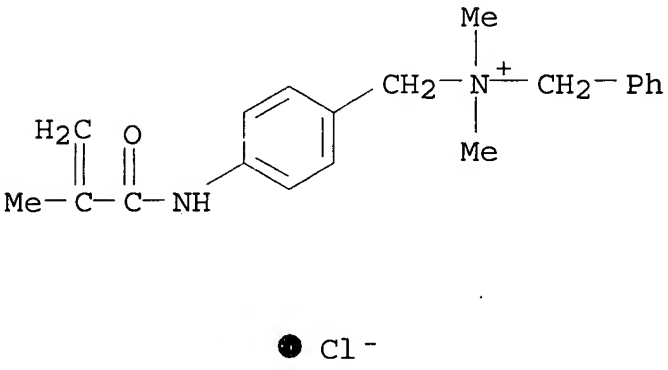
IT **88004-36-8**
(dye in **ink-jet printing** paper with improved properties)

RN 88004-36-8 HCA

CN Benzenemethanaminium, N,N-dimethyl-4-[(2-methyl-1-oxo-2-propenyl)amino]-N-(phenylmethyl)-, chloride, polymer with 1,4-diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

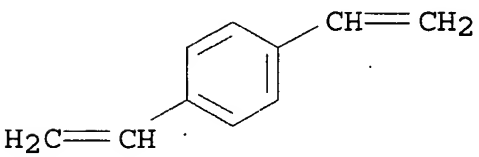
CM 1

CRN 75009-70-0
CMF C20 H25 N2 O . Cl



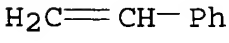
CM 2

CRN 105-06-6
CMF C10 H10



CM 3

CRN 100-42-5
CMF C8 H8



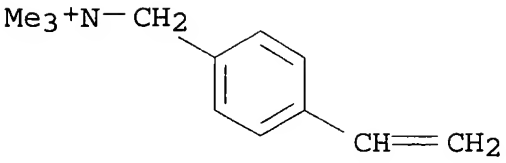
IC ICM B41M005-00

ICS C08L089-00; C08L039-06
ICA C08F226-10; C08L023-00; C08L067-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **ink jet printing** paper dye UV absorber
IT Gelatins, uses
(binder in **ink-jet printing** paper with improved properties)
IT UV stabilizers
(in **ink-jet printing** paper with improved properties)
IT **Ink-jet** recording sheets
(paper; **ink-jet printing** material with improved properties)
IT Paper
(**printing, ink-jet; ink-jet printing** material with improved properties)
IT 36437-37-3 84268-23-5 147315-50-2
(UV-absorber in **ink-jet printing** paper with improved properties)
IT **88004-36-8** 170795-00-3
(dye in **ink-jet printing** paper with improved properties)
IT 9002-88-4, Polyethylene
(**ink-jet printing** paper coated with)

L31 ANSWER 8 OF 18 HCA COPYRIGHT 2003 ACS
129:129023 Water-resistant **ink-jet printing** sheet. Furukawa, Akira; Ishimaru, Tomoko (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10157283 A2 19980616 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-324213 19961204.
AB An **ink-jet printing** sheet comprises an ink-receiving layer on a support, wherein the ink-receiving layer contains a polymer having a functional group -COCH2COR1 (R1 = alkyl). The polymer may be crosslinked with an aldehyde or N-methylol crosslinking agent. The sheet shows excellent glossiness, ink-reception and water-resistance.
IT **210094-24-9**
(in ink-receiving layer of water-resistant **ink-jet printing** sheet)
RN 210094-24-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate hydrochloride (9CI) (CA INDEX NAME)

CM 1

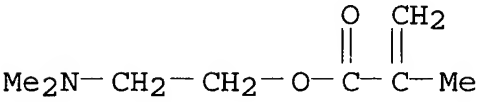
CRN 7538-38-7
CMF C12 H18 N . Cl



● Cl⁻

CM 2

CRN 2421-44-5
CMF C8 H15 N O2 . Cl H



● HCl

IC ICM B41M005-00
ICS B05D005-04; D21H027-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **ink jet printing** sheet crosslinked polymer
IT Gelatins, uses
(in ink-receiving layer of water-resistant **ink-jet printing** sheet)
IT Crosslinking agents
Ink-jet recording sheets
(water-resistant **ink-jet printing** sheet)
IT 27516-33-2 56398-91-5 210093-93-9 210093-94-0 210093-95-1
210093-96-2 210093-99-5 210094-01-2 210094-03-4 210094-05-6
210094-09-0 210094-11-4 210094-13-6 210094-15-8 210094-17-0
210094-19-2 210094-20-5 210094-21-6 210094-22-7 210094-23-8
210094-24-9 210094-25-0 210094-26-1 210287-25-5
210287-26-6 210287-27-7 210287-28-8 210287-29-9
(in ink-receiving layer of water-resistant **ink-jet printing** sheet)
IT 210094-07-8
(n ink-receiving layer of water-resistant **ink-jet printing** sheet)

L31 ANSWER 9 OF 18 HCA COPYRIGHT 2003 ACS
126:244868 Recording material for **ink-jet printing**. Ikeda, Mitsuhiro; Suzaki, Katsumitsu; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 09030112 A2 19970204 Heisei, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-184082 19950720.

AB In the title recording material having an ink-absorbing layer, the ink-absorbing layer is a 3-dimensionally crosslinked layer of a water-sol. amphoteric polymer with an aziridine crosslinker. Specified anionic and cationic monomers are also claimed. The support of the recording material is a polyester film or a resin-coated paper. The invention can prevent image damages caused by water-drop and produce images with photog. picture-like gloss.

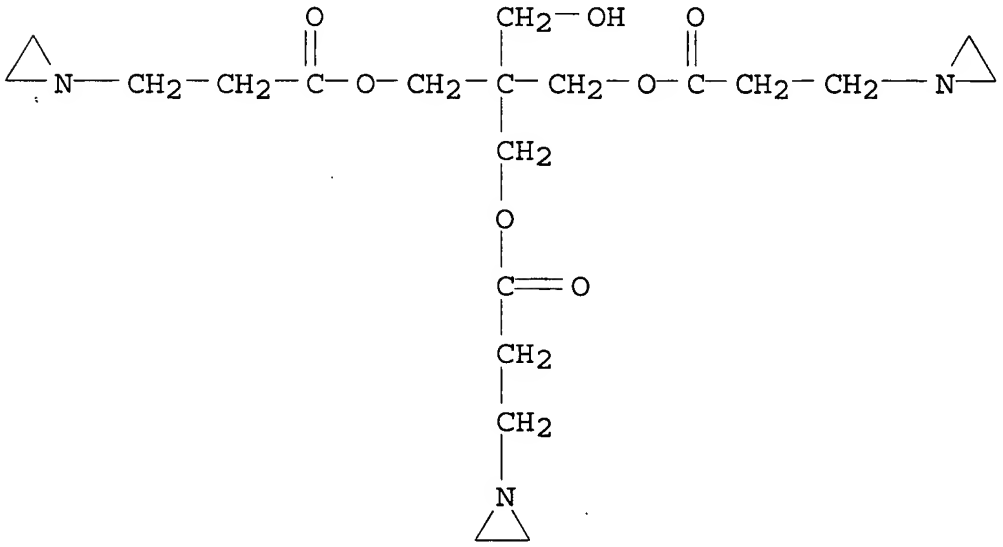
IT **192008-98-3P 192008-99-4P 192082-53-4P 192082-54-5P 192082-55-6P**
(prepd. for forming 3-dimensionally crosslinked ink-absorbing layer for **ink-jet** recording material)

RN 192008-98-3 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-(hydroxymethyl)-1,3-propanediyl bis(1-aziridinepropanoate), N,N-dimethyl-2-propenamide, 1-ethenyl-2-pyrrolidinone and 2-propenoic acid (9CI) (CA INDEX NAME)

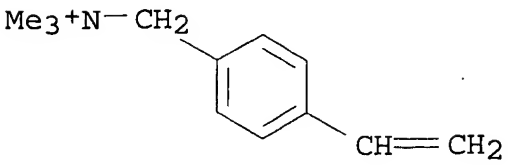
CM 1

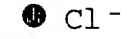
CRN 57116-45-7
CMF C20 H33 N3 O7



CM 2

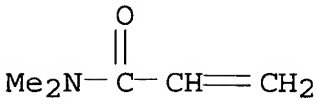
CRN 7538-38-7
CMF C12 H18 N . Cl





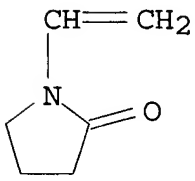
CM 3

CRN 2680-03-7
CMF C5 H9 N O



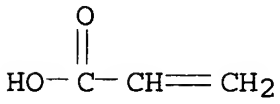
CM 4

CRN 88-12-0
CMF C6 H9 N O



CM 5

CRN 79-10-7
CMF C3 H4 O2

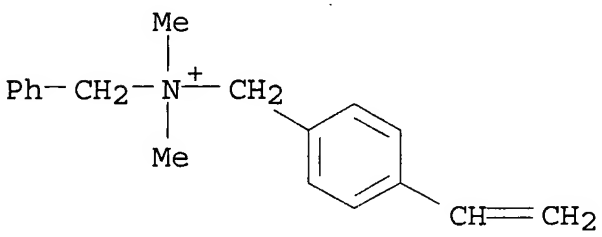


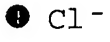
RN 192008-99-4 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-(hydroxymethyl)-1,3-propanediyl bis(1-aziridinepropanoate), N,N-dimethyl-2-propenamide, 1-ethenyl-2-pyrrolidinone and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

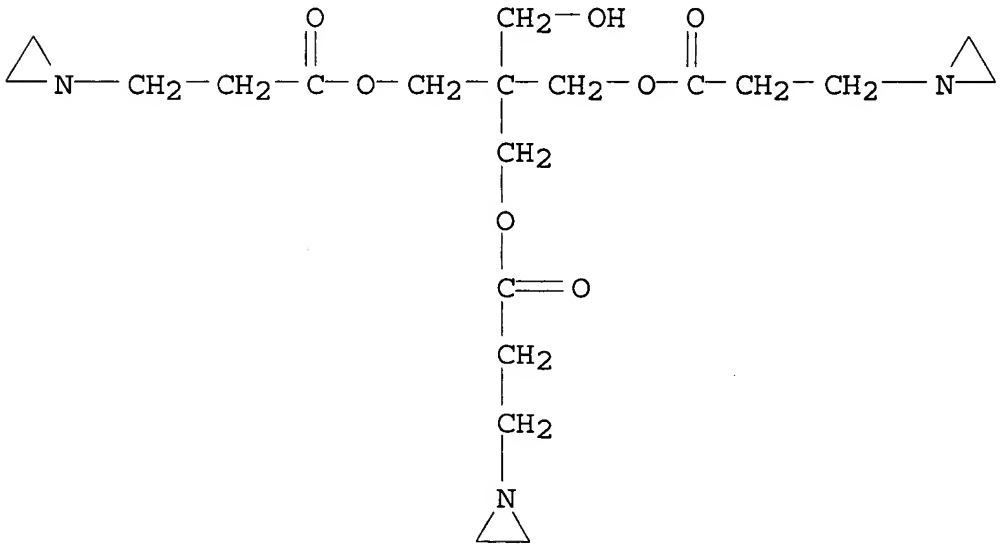
CRN 66099-76-1
CMF C18 H22 N . Cl





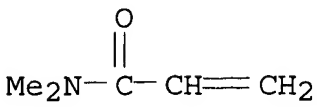
CM 2

CRN 57116-45-7
CMF C20 H33 N3 O7



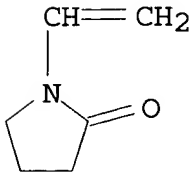
CM 3

CRN 2680-03-7
CMF C5 H9 N O



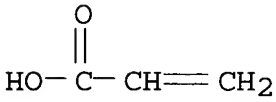
CM 4

CRN 88-12-0
CMF C6 H9 N O



CM 5

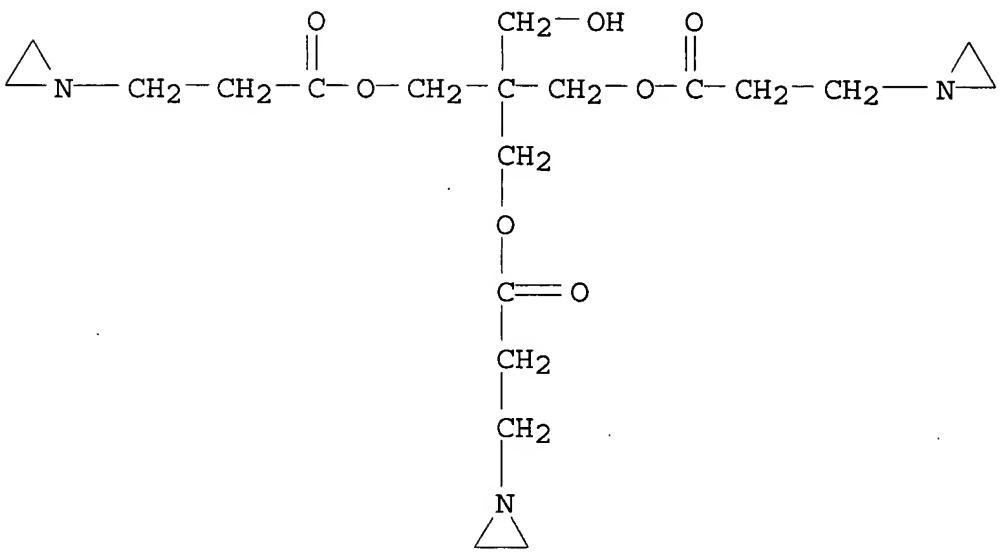
CRN 79-10-7
CMF C3 H4 O2



RN 192082-53-4 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-(hydroxymethyl)-1,3-propanediyl bis(1-aziridinepropanoate), N,N-dimethyl-2-propenamide, 1-ethenyl-2-pyrrolidinone, 2-propenoic acid and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

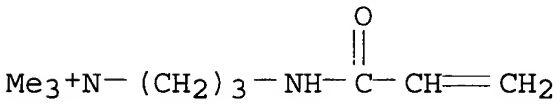
CM 1

CRN 57116-45-7
CMF C20 H33 N3 O7



CM 2

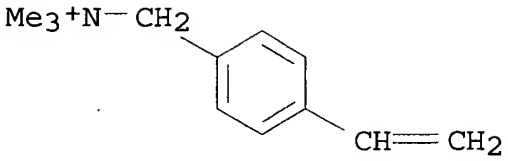
CRN 45021-77-0
CMF C9 H19 N2 O . Cl

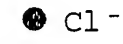


● Cl^-

CM 3

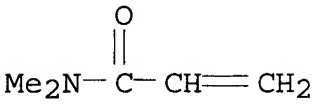
CRN 7538-38-7
CMF C12 H18 N . Cl





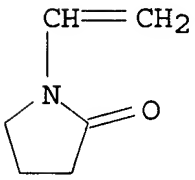
CM 4

CRN 2680-03-7
CMF C5 H9 N O



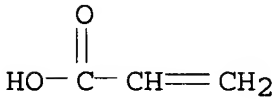
CM 5

CRN 88-12-0
CMF C6 H9 N O



CM 6

CRN 79-10-7
CMF C3 H4 O2

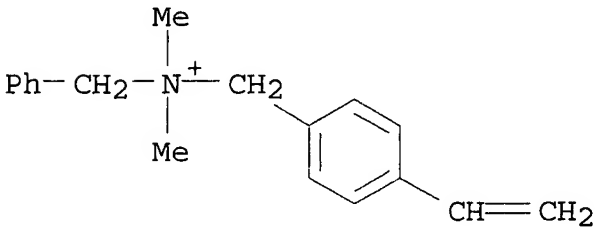


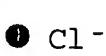
RN 192082-54-5 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-

(hydroxymethyl)-1,3-propanediyl bis(1-aziridinepropanoate), N,N-dimethyl-2-propenamide, 1-ethenyl-2-pyrrolidinone, 2-propenoic acid and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

CM 1

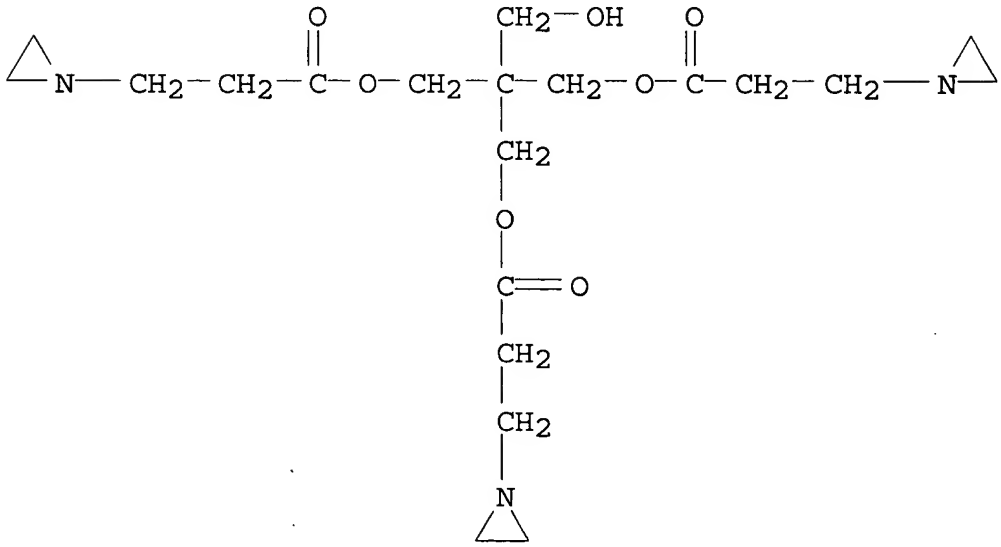
CRN 66099-76-1
CMF C18 H22 N . Cl





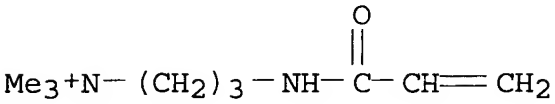
CM 2

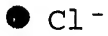
CRN 57116-45-7
CMF C20 H33 N3 O7



CM 3

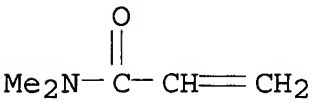
CRN 45021-77-0
CMF C9 H19 N2 O . Cl





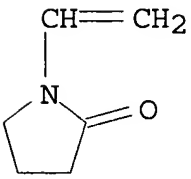
CM 4

CRN 2680-03-7
CMF C5 H9 N O



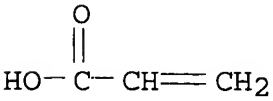
CM 5

CRN 88-12-0
CMF C6 H9 N O



CM 6

CRN 79-10-7
CMF C3 H4 O2

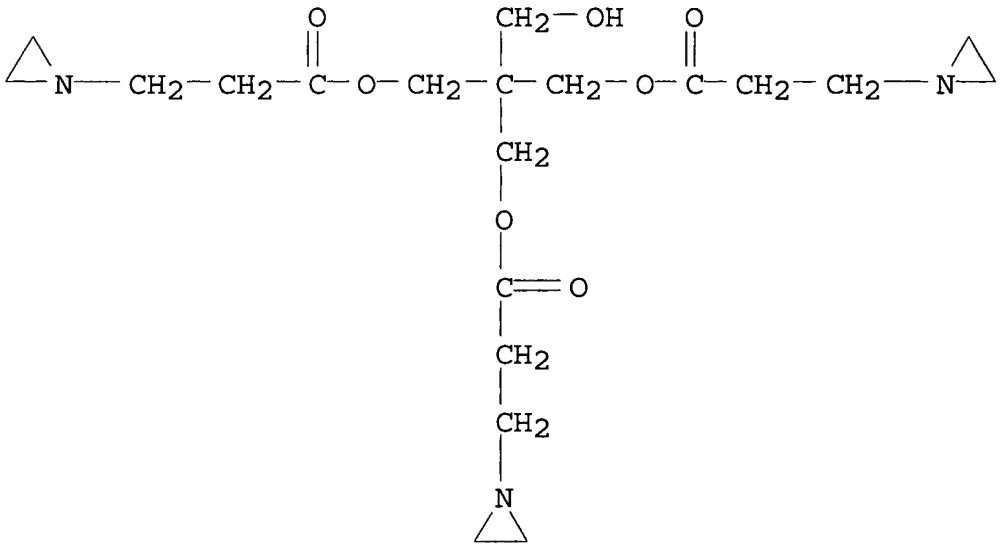


RN 192082-55-6 HCA
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-[[3-(1-aziridinyl)-1-

oxopropoxy]methyl]-2-(hydroxymethyl)-1,3-propanediyl bis(1-aziridinepropanoate), N,N-dimethyl-2-propenamide, 1-ethenyl-2-pyrrolidinone, 4-ethenyl-N,N,N-trimethylbenzenemethanaminium chloride, 2-propenoic acid and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

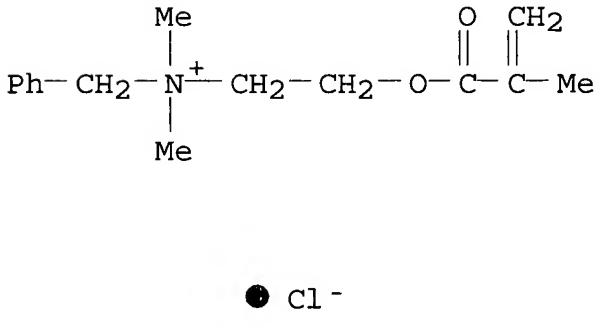
CM 1

CRN 57116-45-7
CMF C20 H33 N3 O7



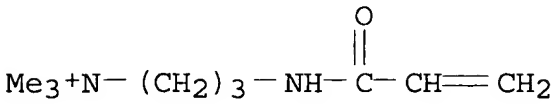
CM 2

CRN 46917-07-1
CMF C15 H22 N O2 . Cl



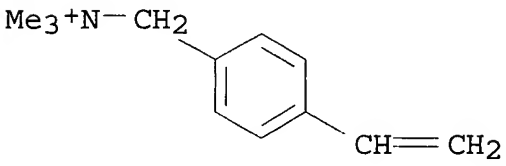
CM 3

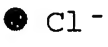
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 4

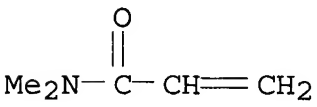
CRN 7538-38-7
CMF C12 H18 N . Cl





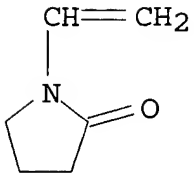
CM 5

CRN 2680-03-7
CMF C5 H9 N O



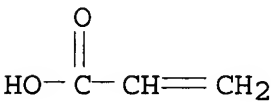
CM 6

CRN 88-12-0
CMF C6 H9 N O



CM 7

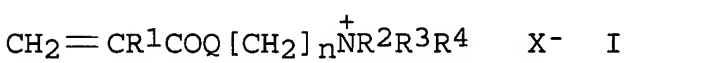
CRN 79-10-7
CMF C3 H4 O2



IC ICM B41M005-00
ICS B05D005-04; B05D007-04; D21H019-16
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **ink jet printing** material; aziridine crosslinker amphoteric polymer recording material
IT **Ink-jet** recording sheets
(having ink-absorbing layer based on 3-dimensionally crosslinked amphoteric polymer)
IT **Ink-jet** recording sheets
Ink-jet recording sheets
(paper; having ink-absorbing layer based on 3-dimensionally crosslinked amphoteric polymer)
IT Paper
Paper
(**printing**, **ink-jet**; having **ink**-absorbing layer based on 3-dimensionally crosslinked amphoteric polymer)
IT Polyesters, uses
(support for **ink-jet printing** material)
IT 2271-93-4, N,N'-Hexamethylene-1,6-bis(1-aziridine carboxamide) 52234-82-9 57116-45-7
(crosslinker forming 3-dimensionally crosslinked ink-absorbing layer for **ink-jet** recording material)
IT 192008-82-5P 192008-83-6P 192008-84-7P 192008-85-8P
192008-86-9P 192008-87-0P 192008-88-1P 192008-89-2P
192008-90-5P 192008-91-6P 192008-92-7P 192008-93-8P
192008-94-9P 192008-95-0P 192008-96-1P 192008-97-2P
192008-98-3P 192008-99-4P 192009-00-0P
192009-01-1P 192009-02-2P 192009-03-3P 192009-04-4P
192009-05-5P 192009-06-6P 192082-52-3P **192082-53-4P**

192082-54-5P 192082-55-6P
(prepd. for forming 3-dimensionally crosslinked ink-absorbing layer for **ink-jet** recording material)

L31 ANSWER 10 OF 18 HCA COPYRIGHT 2003 ACS
126:96956 Back printing-type recording material for **ink-jet printing**. Sekine, Mikya; Uto, Tetsuya (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08282092 A2 19961029 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-94737 19950420.
GI



I

AB In the back print-type recording material with a porous ink-absorbing layer formed on a transparent support, the ink-absorbing layer contains at least a polymer contg. a quaternary ammonium base and pigment particles with the refractive index of .ltoreq.1.7 to prevent image smears and increase water fastness. One type of the polymers may be represented by I (R1 - H, Me; Q = O, NH; R2-4 = Me, Et, benzyl; X = halogen ion, sulfonic acid ion, etc.; n = 2, 3).

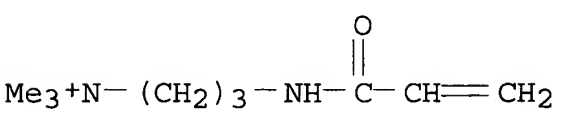
IT **185457-21-0 185457-23-2**
(back printing-type recording material for **ink-jet printing**)

RN 185457-21-0 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

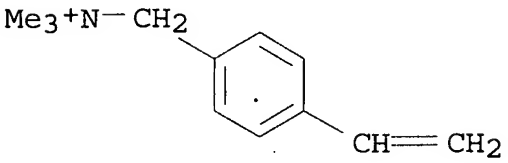
CM 1

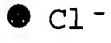
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 2

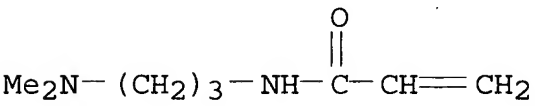
CRN 7538-38-7
CMF C12 H18 N . Cl





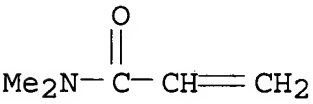
CM 3

CRN 3845-76-9
CMF C8 H16 N2 O



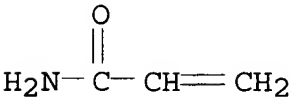
CM 4

CRN 2680-03-7
CMF C5 H9 N O



CM 5

CRN 79-06-1
CMF C3 H5 N O

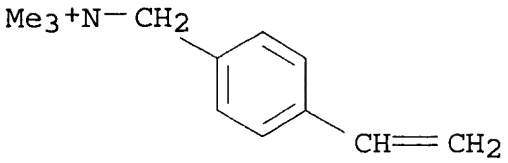


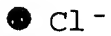
RN 185457-23-2 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with N-[3-(dimethylamino)propyl]-2-propenamide (9CI) (CA INDEX

NAME)

CM 1

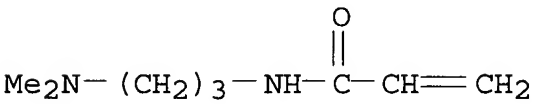
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

CRN 3845-76-9
CMF C8 H16 N2 O

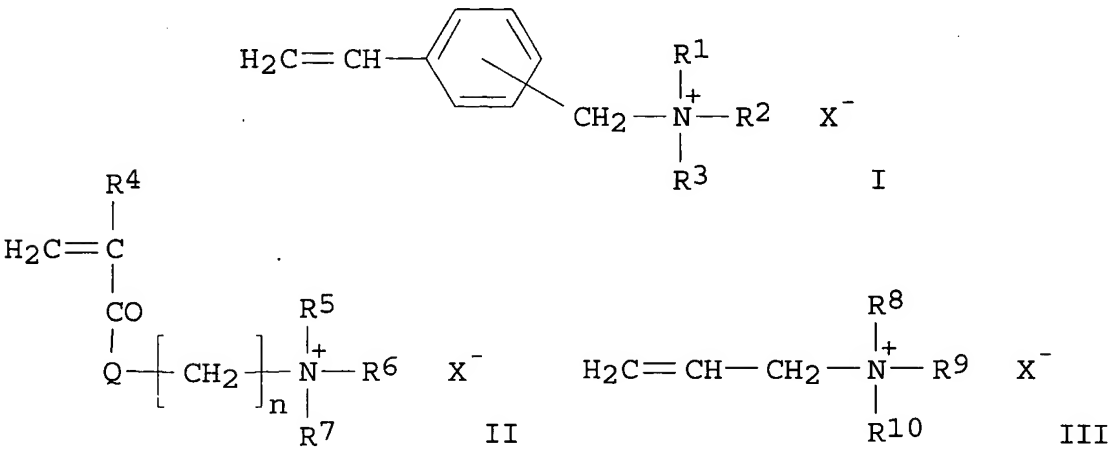


IC ICM B41M005-00
ICS D21H019-38; D21H019-44
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST back **printing ink jet** recoring material; quaternary ammonium base polymer recoring material; pigment **ink jet** recoring material
IT **Ink-jet** recording sheets
Ink-jet recording sheets
(paper; back printing-type recording material for **ink-jet printing**)
IT Paper
Paper
(**printing**, **ink-jet**; back **printing**-type recording material for **ink-jet printing**)
IT 471-34-1, Calcium carbonate, uses 7631-86-9, Silica, uses 13463-67-7, Tipaque A-100, uses 26160-89-4, Epostar S 30973-80-9, Acrylamide-N,N-dimethylacrylamide copolymer 122462-78-6, Epostar S6 185457-15-2 185457-17-4 185457-19-6 **185457-21-0 185457-23-2**

(back printing-type recording material for **ink-jet printing**)

L31 ANSWER 11 OF 18 HCA COPYRIGHT 2003 ACS
125:181354 **Ink-jet** recording receptor. Ikeda, Mitsuhiro; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08142496 A2 19960604 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-287035 19941122.

GI



AB The receptor has an ink absorbing layer prepd. by mixing a polymer (A) contg. quaternary ammonium salt I (R1-3 = alkyl, aryl, aralkyl; X- = halo ion, sulfate, alkylsulfonate, alkylcarbonate) as a monomer unit and another polymer (B) contg. II and/or III (R4 = H, Me; Q = O, NH; R5-7 = Me, Et; R8-10 = Me, Et, alkyl; X- = same as above; n = 2, 3) as monomer unit(s), then 3-dimensionally crosslinking the polymers by an hardening agent. The receptor shows good water resistance.

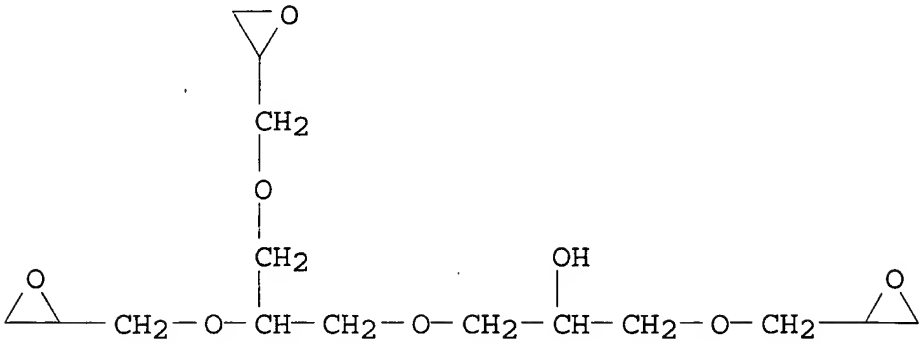
IT **180330-13-6 180330-14-7 180330-15-8**
180330-16-9 180330-17-0 180330-18-1
180330-19-2 180330-20-5 180330-21-6
180330-22-7 180330-23-8 180330-24-9
180330-25-0 180330-26-1 180330-27-2
180330-28-3 180330-29-4 180330-30-7
(**ink jet** recording receptor contg. crosslinked quaternary ammonium salt polymer).

RN 180330-13-6 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

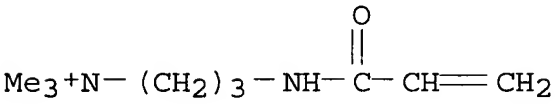
CM 1

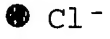
CRN 74696-50-7
CMF C15 H26 O8



CM 2

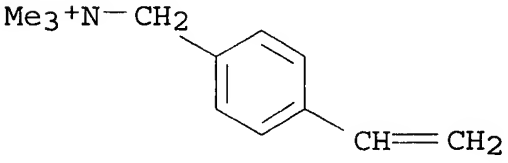
CRN 45021-77-0
CMF C9 H19 N2 O . Cl





CM 3

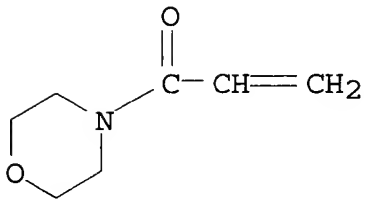
CRN 7538-38-7
CMF C12 H18 N . Cl



Cl -

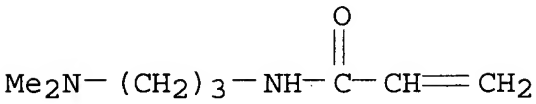
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



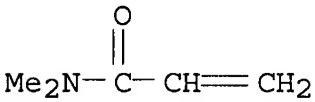
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



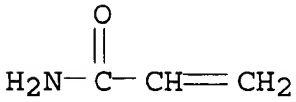
CM 6

CRN 2680-03-7
CMF C5 H9 N O



CM 7

CRN 79-06-1
CMF C3 H5 N O

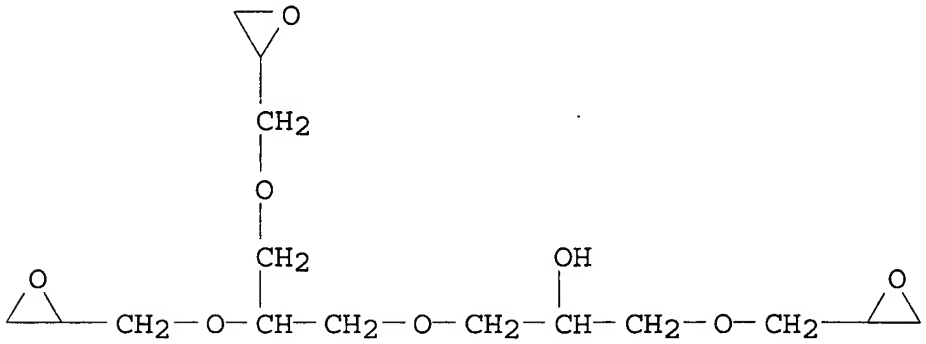


RN 180330-14-7 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-

propenamide, 4-(1-oxo-2-propenyl)morpholine, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

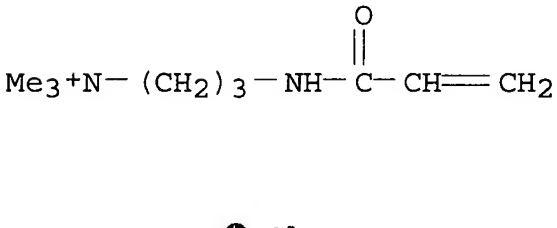
CM 1

CRN 74696-50-7
CMF C15 H26 O8



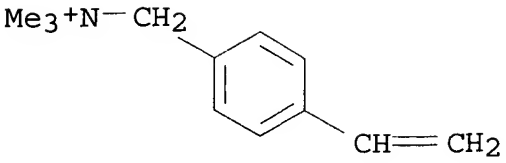
CM 2

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



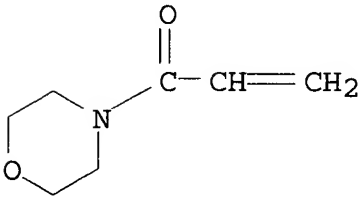
CM 3

CRN 7538-38-7
CMF C12 H18 N . Cl



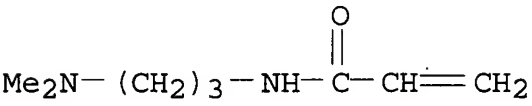
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



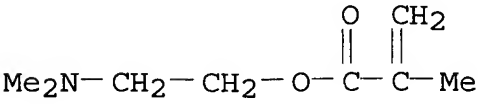
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



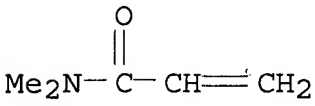
CM 6

CRN 2867-47-2
CMF C8 H15 N O2



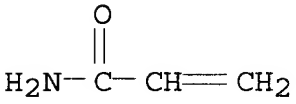
CM 7

CRN 2680-03-7
CMF C5 H9 N O



CM 8

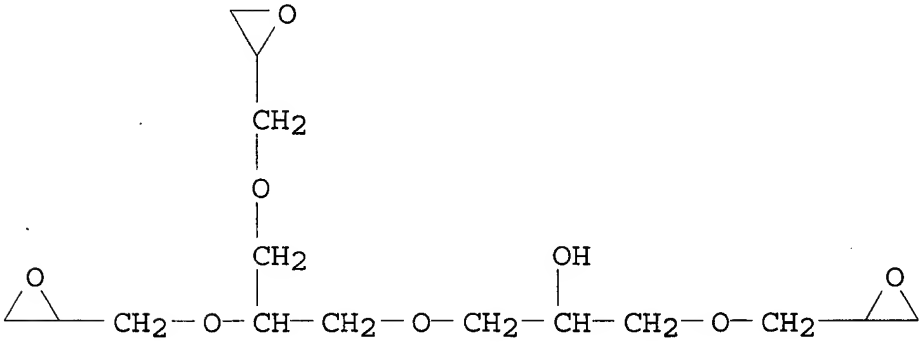
CRN 79-06-1
CMF C3 H5 N O



RN 180330-15-8 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

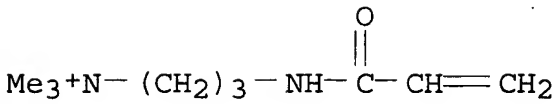
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

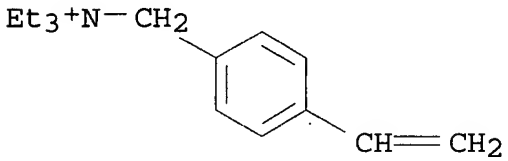
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



● Cl -

CM 3

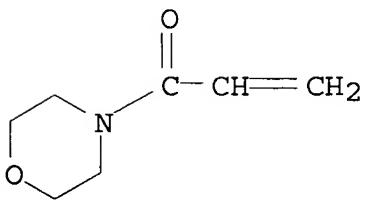
CRN 14350-43-7
CMF C15 H24 N . Cl



● Cl -

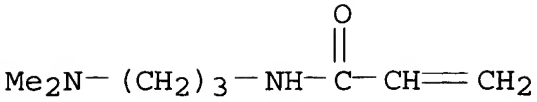
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



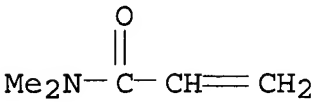
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



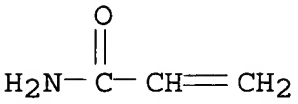
CM 6

CRN 2680-03-7
CMF C5 H9 N O



CM 7

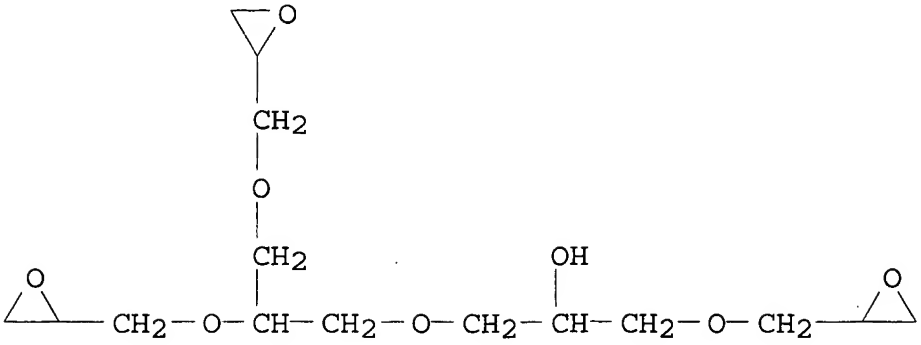
CRN 79-06-1
CMF C3 H5 N O



RN 180330-16-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

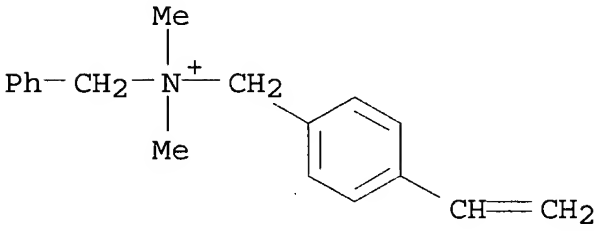
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

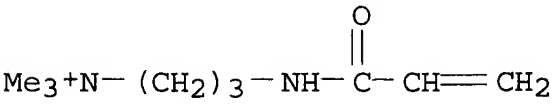
CRN 66099-76-1
CMF C18 H22 N . Cl



Cl -

CM 3

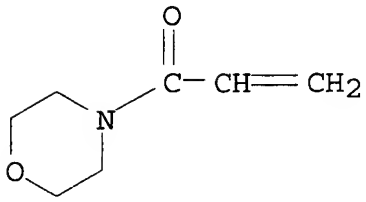
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



Cl -

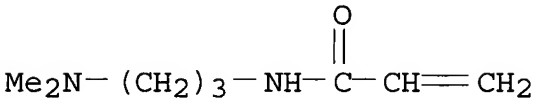
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



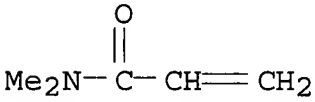
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



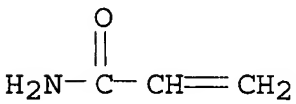
CM 6

CRN 2680-03-7
CMF C5 H9 N O



CM 7

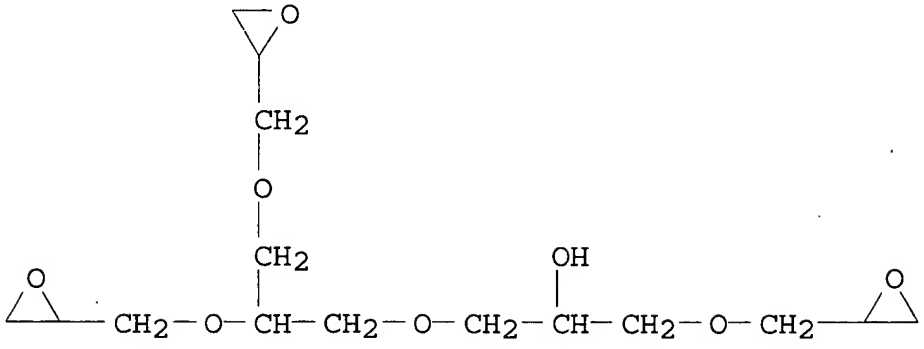
CRN 79-06-1
CMF C3 H5 N O



RN 180330-17-0 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

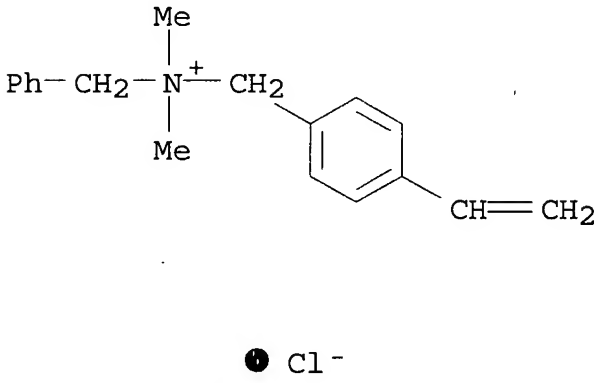
CM 1

CRN 74696-50-7
CMF C15 H26 O8



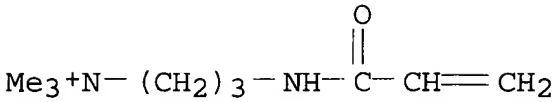
CM 2

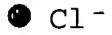
CRN 66099-76-1
CMF C18 H22 N . Cl



CM 3

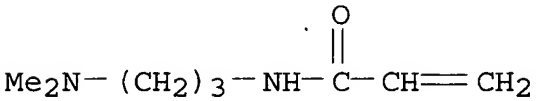
CRN 45021-77-0
CMF C9 H19 N2 O . Cl





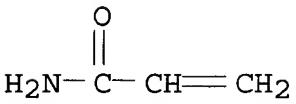
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



CM 5

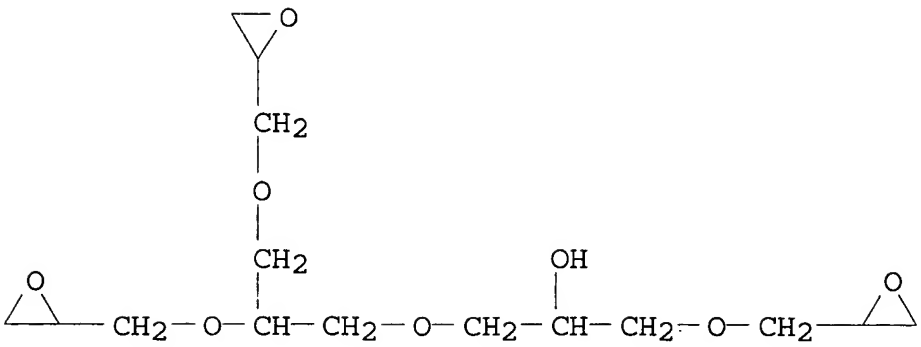
CRN 79-06-1
CMF C3 H5 N O



RN 180330-18-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

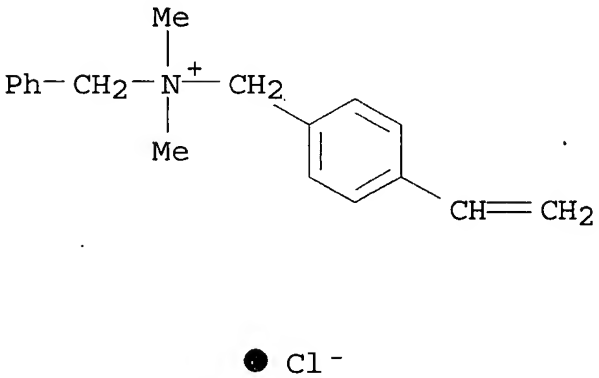
CM 1

CRN 74696-50-7
CMF C15 H26 O8



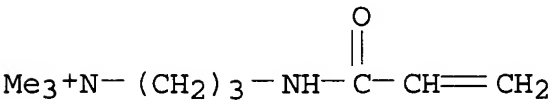
CM 2

CRN 66099-76-1
CMF C18 H22 N . Cl



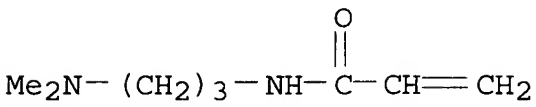
CM 3

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



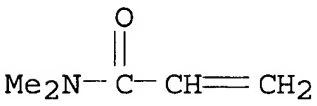
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



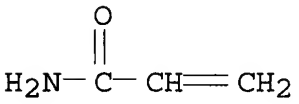
CM 5

CRN 2680-03-7
CMF C5 H9 N O



CM 6

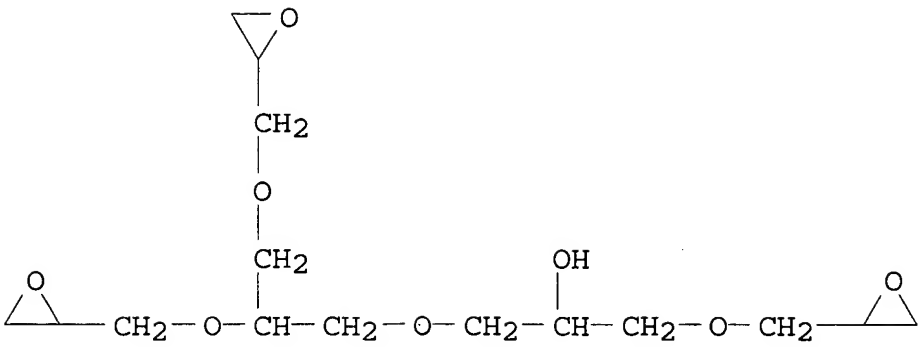
CRN 79-06-1
CMF C3 H5 N O



RN 180330-19-2 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

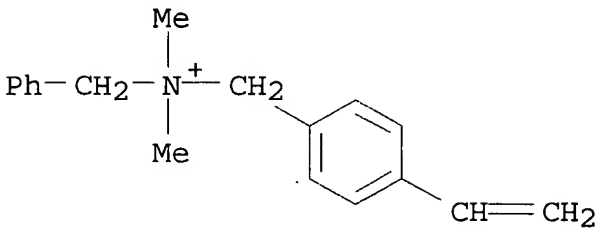
CM 1

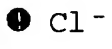
CRN 74696-50-7
CMF C15 H26 O8



CM 2

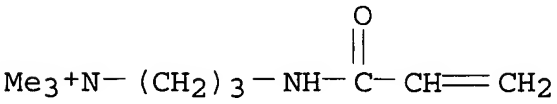
CRN 66099-76-1
CMF C18 H22 N . Cl





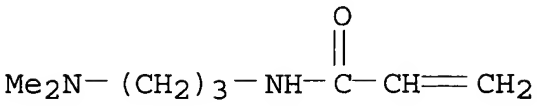
CM 3

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



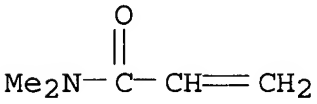
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



CM 5

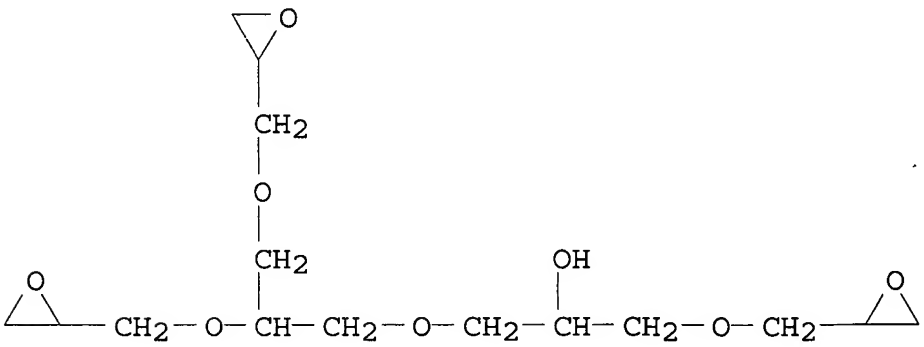
CRN 2680-03-7
CMF C5 H9 N O



RN 180330-20-5 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

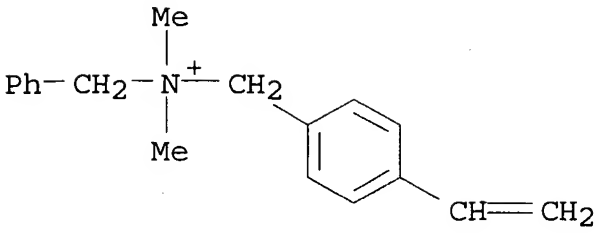
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

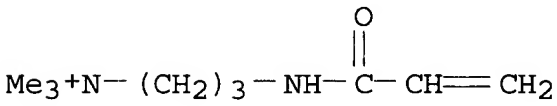
CRN 66099-76-1
CMF C18 H22 N . Cl



● Cl⁻

CM 3

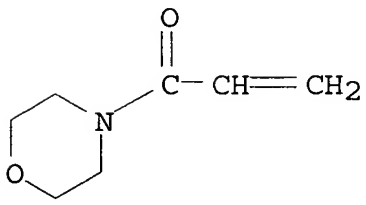
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



● Cl⁻

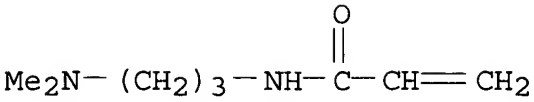
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



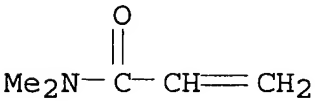
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



CM 6

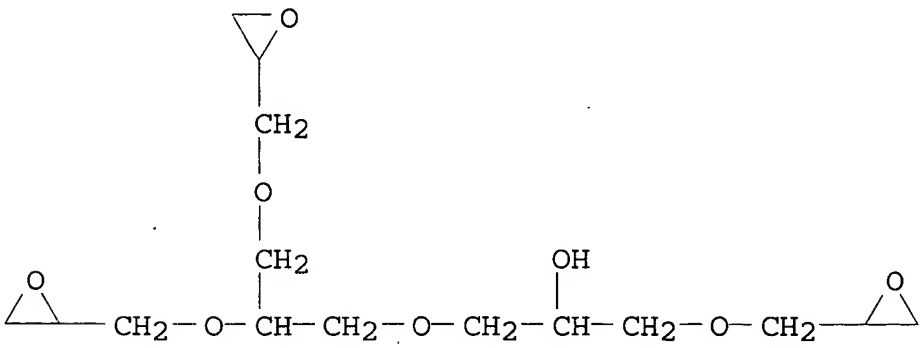
CRN 2680-03-7
CMF C5 H9 N O



RN 180330-21-6 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, 4-(1-oxo-2-propenyl)morpholine and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

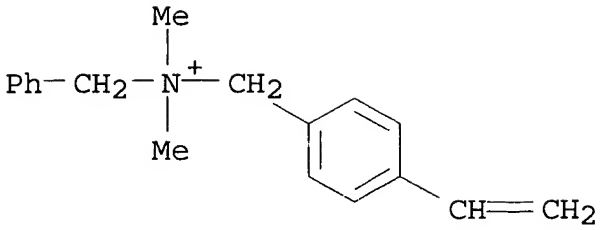
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

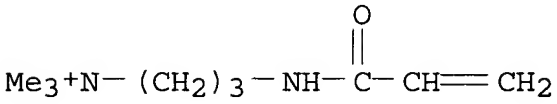
CRN 66099-76-1
CMF C18 H22 N . Cl



● Cl -

CM 3

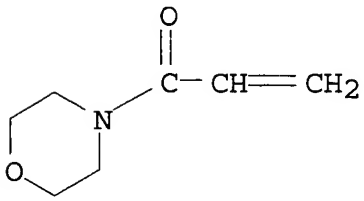
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



● Cl -

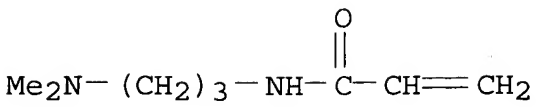
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



CM 5

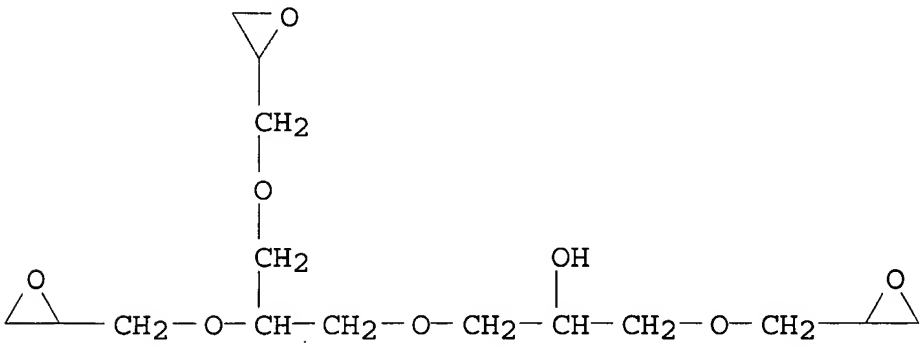
CRN 3845-76-9
CMF C8 H16 N2 O



RN 180330-22-7 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, 2-hydroxyethyl 2-methyl-2-propenoate, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

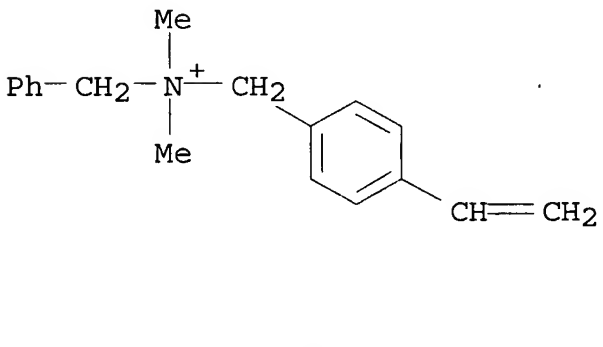
CM 1

CRN 74696-50-7
CMF C15 H26 O8



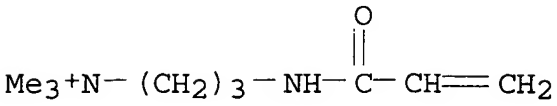
CM 2

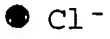
CRN 66099-76-1
CMF C18 H22 N . Cl



CM 3

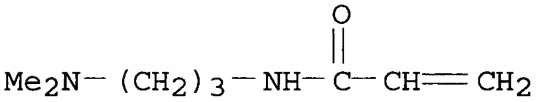
CRN 45021-77-0
CMF C9 H19 N2 O . Cl





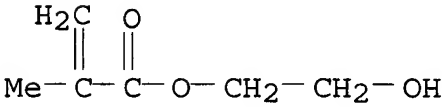
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



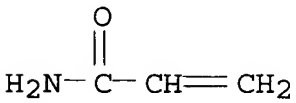
CM 5

CRN 868-77-9
CMF C6 H10 O3



CM 6

CRN 79-06-1
CMF C3 H5 N O

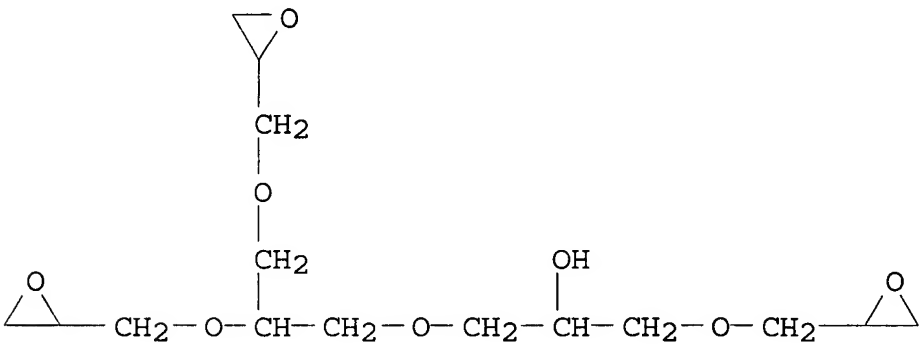


RN 180330-23-8 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-,

chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

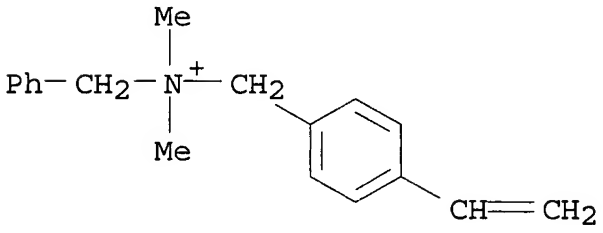
CM 1

CRN 74696-50-7
CMF C15 H26 O8



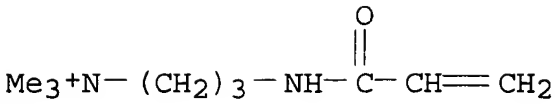
CM 2

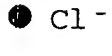
CRN 66099-76-1
CMF C18 H22 N . Cl



CM 3

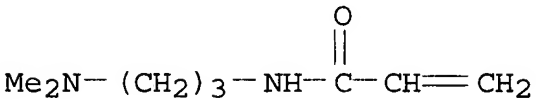
CRN 45021-77-0
CMF C9 H19 N2 O . Cl





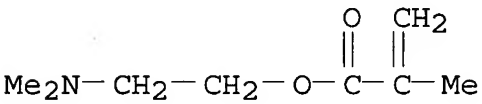
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



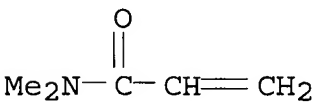
CM 5

CRN 2867-47-2
CMF C8 H15 N O2



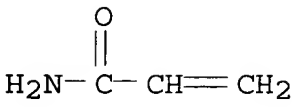
CM 6

CRN 2680-03-7
CMF C5 H9 N O



CM 7

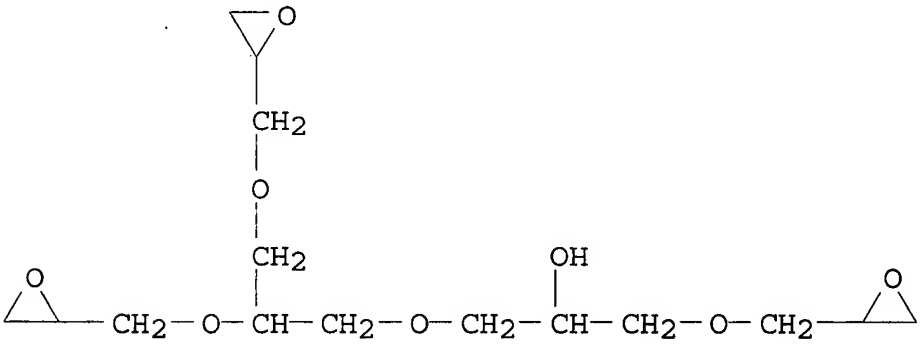
CRN 79-06-1
CMF C3 H5 N O



RN 180330-24-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

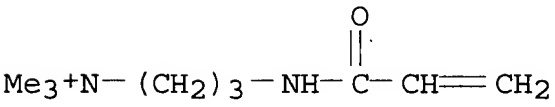
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

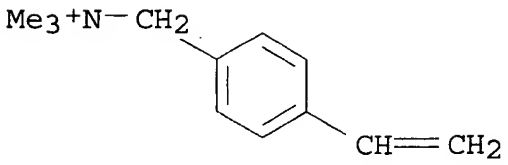
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 3

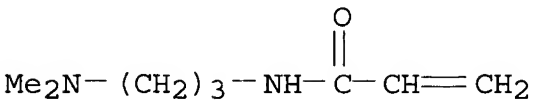
CRN 7538-38-7

CMF C12 H18 N . Cl



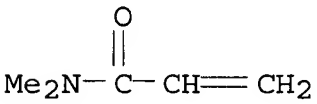
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



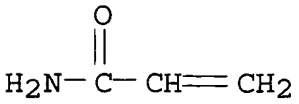
CM 5

CRN 2680-03-7
CMF C5 H9 N O



CM 6

CRN 79-06-1
CMF C3 H5 N O

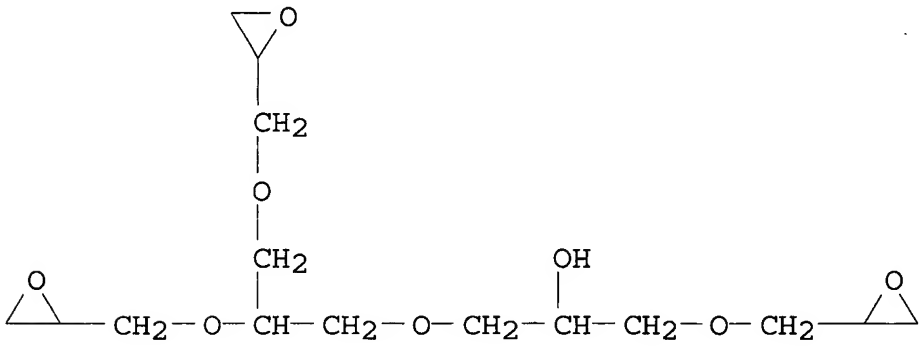


RN 180330-25-0 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine and

N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

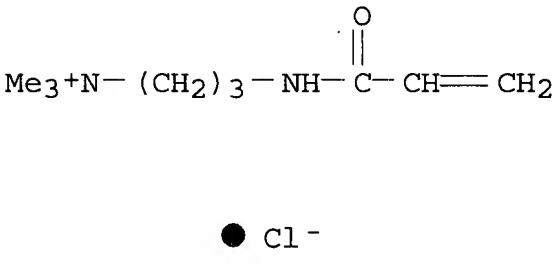
CM 1

CRN 74696-50-7
CMF C15 H26 O8



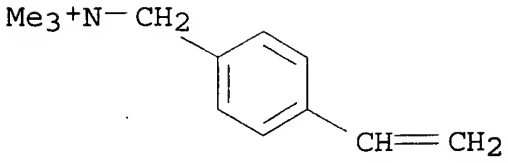
CM 2

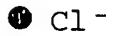
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 3

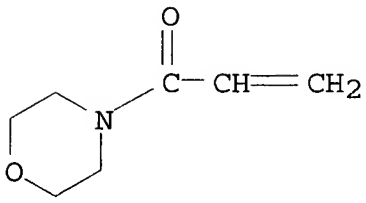
CRN 7538-38-7
CMF C12 H18 N . Cl





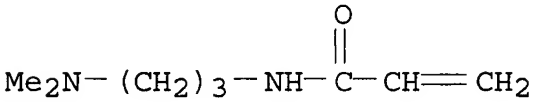
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



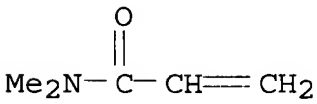
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



CM 6

CRN 2680-03-7
CMF C5 H9 N O

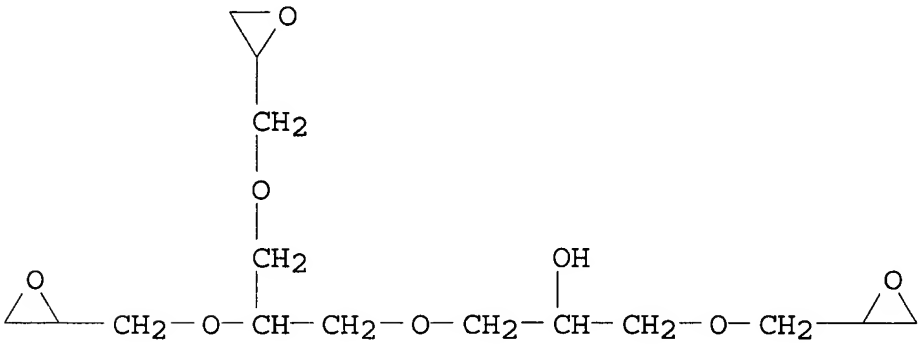


RN 180330-26-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-

(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 2-propenamide and N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

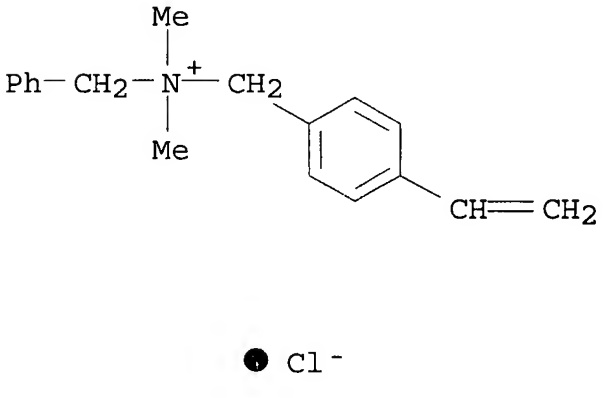
CM 1

CRN 74696-50-7
CMF C15 H26 O8



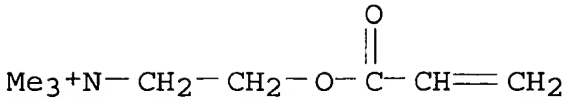
CM 2

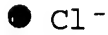
CRN 66099-76-1
CMF C18 H22 N . Cl



CM 3

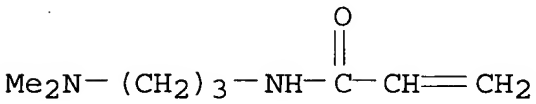
CRN 44992-01-0
CMF C8 H16 N O2 . Cl





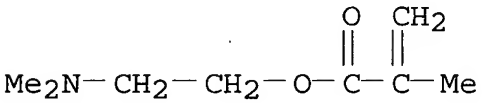
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



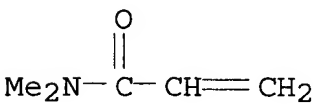
CM 5

CRN 2867-47-2
CMF C8 H15 N O2



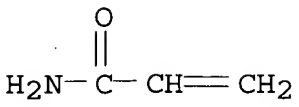
CM 6

CRN 2680-03-7
CMF C5 H9 N O



CM 7

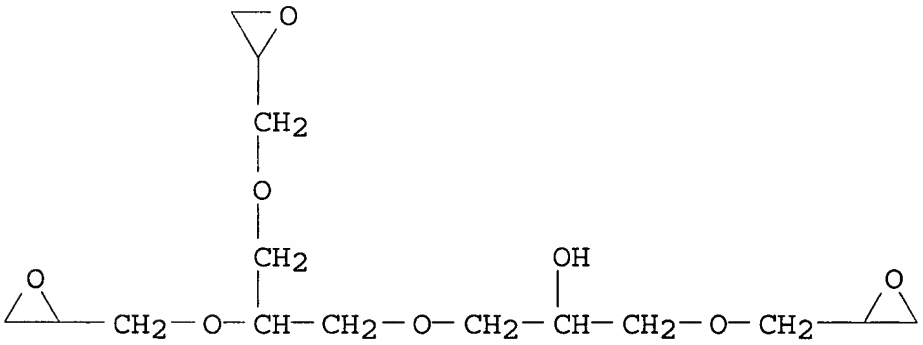
CRN 79-06-1
CMF C3 H5 N O



RN 180330-27-2 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

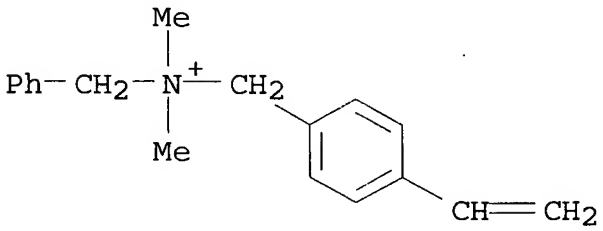
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

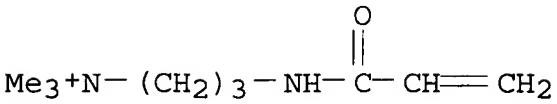
CRN 66099-76-1
CMF C18 H22 N . Cl

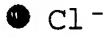


Cl -

CM 3

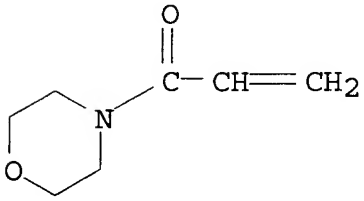
CRN 45021-77-0
CMF C9 H19 N2 O . Cl





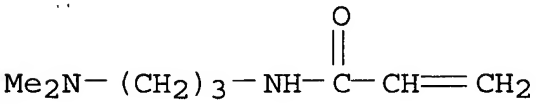
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



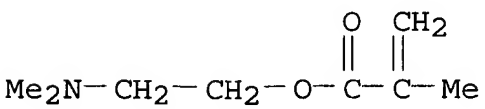
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



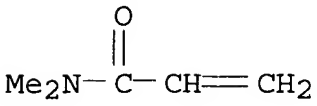
CM 6

CRN 2867-47-2
CMF C8 H15 N O2



CM 7

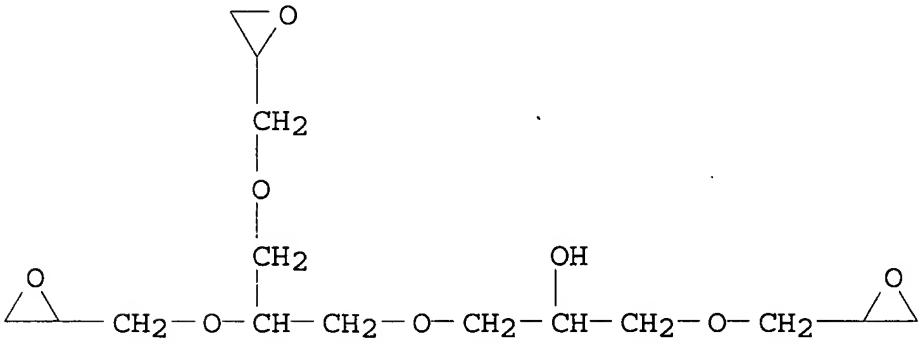
CRN 2680-03-7
CMF C5 H9 N O



RN 180330-28-3 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, 4-(1-oxo-2-propenyl)morpholine and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

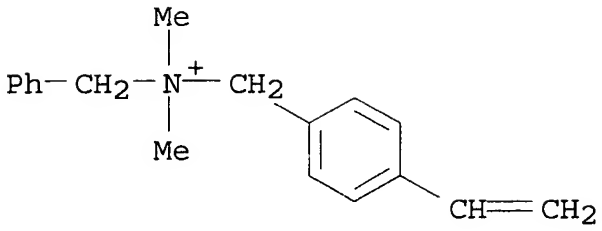
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

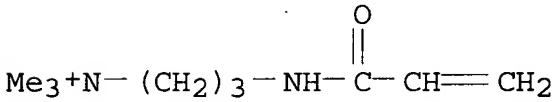
CRN 66099-76-1
CMF C18 H22 N . Cl



● Cl⁻

CM 3

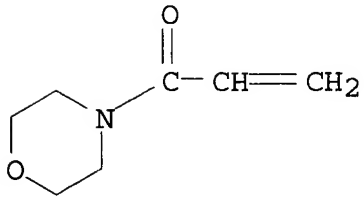
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



● Cl⁻

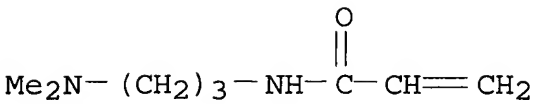
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



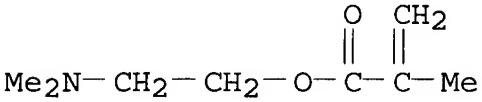
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



CM 6

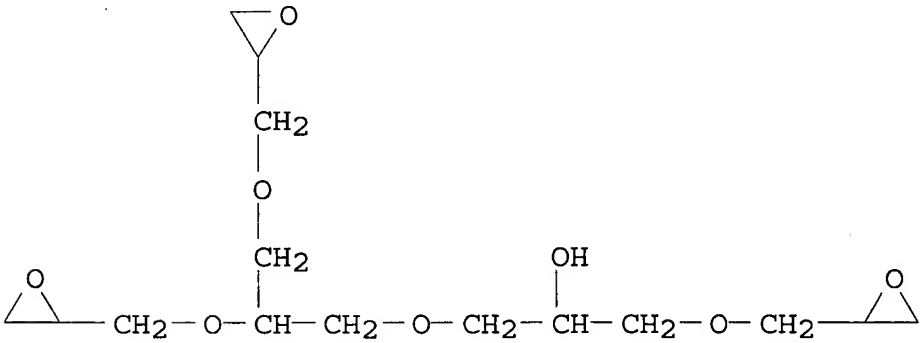
CRN 2867-47-2
CMF C8 H15 N O2



RN 180330-29-4 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 4-(1-oxo-2-propenyl)morpholine, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

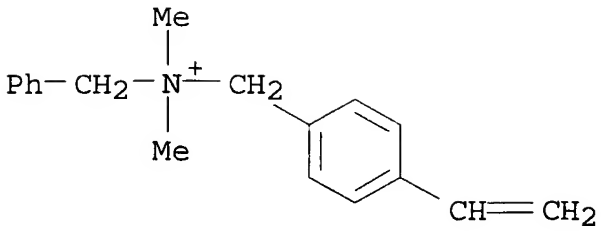
CM 1

CRN 74696-50-7
CMF C15 H26 O8



CM 2

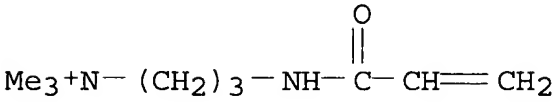
CRN 66099-76-1
CMF C18 H22 N . Cl



● Cl^-

CM 3

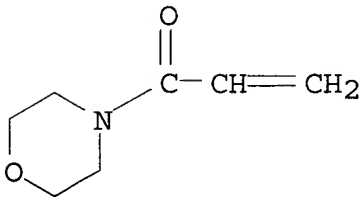
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



● Cl^-

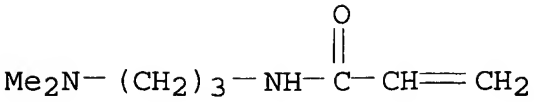
CM 4

CRN 5117-12-4
CMF C7 H11 N O2



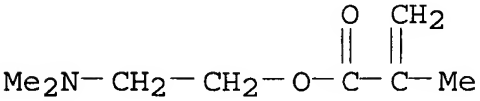
CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



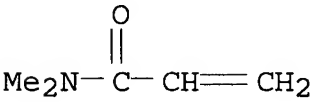
CM 6

CRN 2867-47-2
CMF C8 H15 N O2



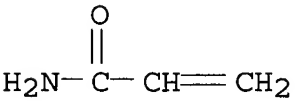
CM 7

CRN 2680-03-7
CMF C5 H9 N O



CM 8

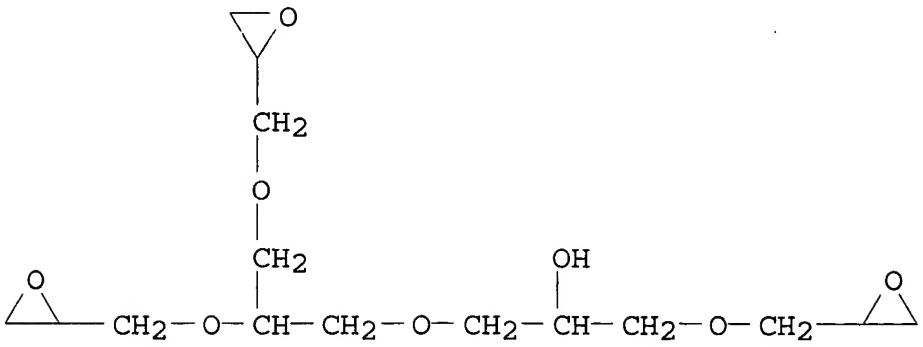
CRN 79-06-1
CMF C3 H5 N O



RN 180330-30-7 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, N-[3-(dimethylamino)propyl]-2-propenamide, N,N-dimethyl-2-propenamide, 2-hydroxyethyl 2-methyl-2-propenoate, 2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

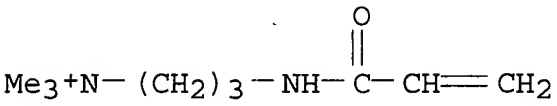
CM 1

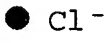
CRN 74696-50-7
CMF C15 H26 O8



CM 2

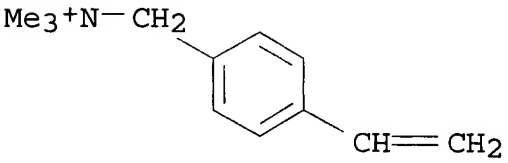
CRN 45021-77-0
CMF C9 H19 N2 O . Cl

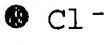




CM 3

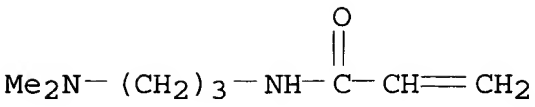
CRN 7538-38-7
CMF C12 H18 N . Cl





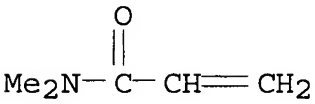
CM 4

CRN 3845-76-9
CMF C8 H16 N2 O



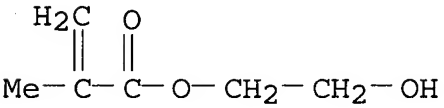
CM 5

CRN 2680-03-7
CMF C5 H9 N O



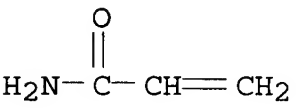
CM 6

CRN 868-77-9
CMF C6 H10 O3



CM 7

CRN 79-06-1
CMF C3 H5 N O

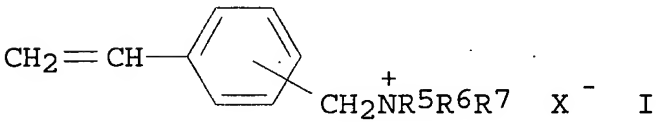


IC ICM B41M005-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **ink jet** recording receptor; quaternary ammonium salt polymer receptor
IT **Printing**, nonimpact
(**ink-jet**, **ink jet** recording receptor contg. crosslinked quaternary ammonium salt polymer)
IT Quaternary ammonium compounds, uses
(polymers, **ink jet** recording receptor contg. crosslinked quaternary ammonium salt polymer)

IT **180330-13-6 180330-14-7 180330-15-8**
180330-16-9 180330-17-0 180330-18-1
180330-19-2 180330-20-5 180330-21-6
180330-22-7 180330-23-8 180330-24-9
180330-25-0 180330-26-1 180330-27-2
180330-28-3 180330-29-4 180330-30-7
(**ink jet** recording receptor contg. crosslinked quaternary ammonium salt polymer)

L31 ANSWER 12 OF 18 HCA COPYRIGHT 2003 ACS
124:160423 **Ink-jet** recording material with improved transparency and gloss. Ikeda, Mitsuhiro; Furukawa, Akira; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07257015 A2 19951009 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-48354 19940318.

GI



AB The material consists of a support coated with an ink-absorbing layer contg. a water-sol. quaternary ammonium salt-contg. polymer and a layer contg. spherical SiO2 fine particles (ink-absorbing layer coverage ratio 1-50 wt.%) and 5-150 wt.% of an alc.-sol. polymer (<0.3 g/m2). The quaternary ammonium salt-contg. polymer may obtained by polymn. of CH2:C(R1)[C(:O)Q(CH2)nN+R2R3R4.X-], a styrene deriv. I, and CH2:CHCH2N+R8R9R10.X- (R1 = H, Me; Q = O, NH; R2-7 = Me, Et; X- = halo, SO3-, alkylsulfonic acid anion, AcO-, alkylcarboxylic acid anion; n = 2, 3; R8-10 = Me, Et, allyl). The material showed good transparency and water resistance.

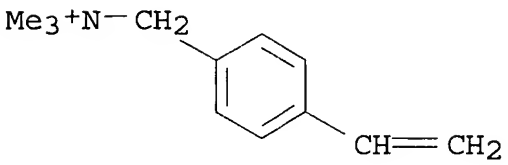
IT **73363-10-7P**, Acrylamide-p-vinylbenzyltrimethylammonium chloride copolymer **172785-56-7P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-p-vinylbenzyltrimethylammonium chloride copolymer **172785-58-9P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-p-vinylbenzyltrimethylammonium chloride copolymer
(**ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

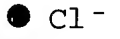
RN 73363-10-7 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

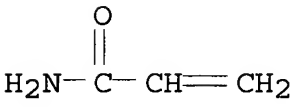
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

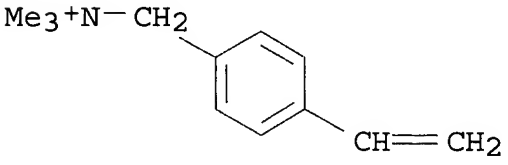
CRN 79-06-1
CMF C3 H5 N O

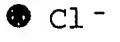


RN 172785-56-7 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

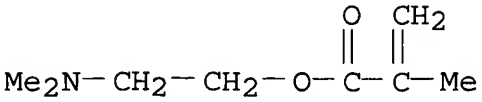
CRN 7538-38-7
CMF C12 H18 N . Cl





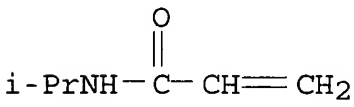
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



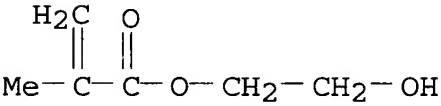
CM 3

CRN 2210-25-5
CMF C6 H11 N O



CM 4

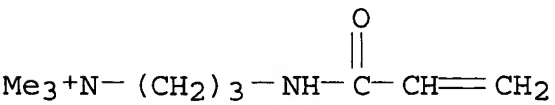
CRN 868-77-9
CMF C6 H10 O3



RN 172785-58-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, N-(1-methylethyl)-2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

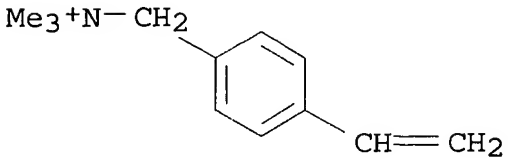
CM 1

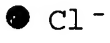
CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 2

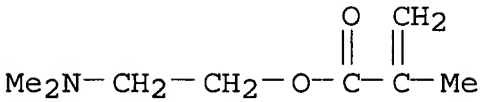
CRN 7538-38-7
CMF C12 H18 N . Cl





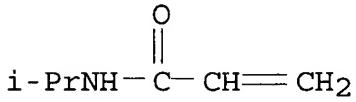
CM 3

CRN 2867-47-2
CMF C8 H15 N O2



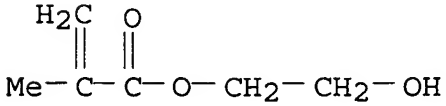
CM 4

CRN 2210-25-5
CMF C6 H11 N O



CM 5

CRN 868-77-9
CMF C6 H10 O3



IC ICM B41M005-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **ink jet** recording quaternary ammonium polymer; transparency **ink jet** recording material; gloss **ink jet** recording material; silica coating **ink jet** recording
IT Epoxy resins, uses
(curing agents; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
IT Ionomers
(**ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
IT Silsesquioxanes
(Me, overcoat layer, Tospearl; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
IT Vinyl acetal polymers
(butyrals, overcoat layer, S-Lec; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
IT **Printing**, nonimpact
(**ink-jet**, **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
IT 74696-50-7
(curing agents; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)
IT 26590-05-6P, Acrylamide-diallyldimethylammonium chloride copolymer **73363-10-7P**, Acrylamide-p-vinylbenzyltrimethylammonium chloride copolymer 75150-29-7P, Acrylamide-trimethyl-3-(acryloylamino)propylammonium chloride copolymer 172785-53-4P, Acrylamide-3-(N,N-dimethylaminopropyl)acrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-trimethyl-2-(methacryloyloxy)ethylammonium chloride copolymer 172785-54-5P, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride copolymer 172785-55-6P **172785-56-7P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-p-vinylbenzyltrimethylammonium chloride copolymer 172785-57-8P **172785-58-9P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-p-vinylbenzyltrimethylammonium chloride copolymer 173274-41-4P, Acrylamide-3-(N,N-dimethylaminopropyl)acrylamide-2-hydroxyethyl methacrylate-trimethyl-3-(acryloylamino)propylammonium chloride

copolymer
(**ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

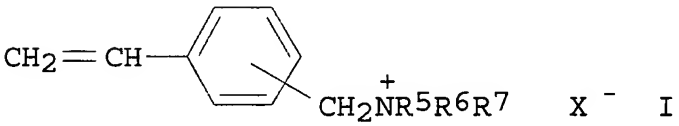
IT 25067-34-9, Ethylene-vinyl alcohol copolymer
(overcoat layer, Soarnol 30T; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

IT 9003-01-4, Poly(acrylic acid) 9003-39-8, Polyvinylpyrrolidone 9004-62-0, Hydroxyethylcellulose 9012-76-4, Chitosan 25249-16-5, Poly(2-hydroxyethyl methacrylate) 25609-89-6, Crotonic acid-vinyl acetate copolymer 28500-83-6, Acrylamide-N-isopropylacrylamide copolymer 85510-39-0, Toresin EF 30T 153315-80-1, Tospearl 145
(overcoat layer; **ink-jet** recording materials having quaternary ammonium salt-contg. polymer ink-absorbing layer with good gloss and transparency)

L31 ANSWER 13 OF 18 HCA COPYRIGHT 2003 ACS

124:160422 Lustered **ink-jet** recording material with good transparency. Sekine, Mikya; Furukawa, Akira; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07242055 A2 19950919 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-33696 19940303.

GI



AB The recording material comprises a support successively coated with an ink-absorbing layer contg. a quaternary ammonium base-contg. water-sol. polymer and an overcoat layer comprised of SiO2 fine particles covering 5-50% of the ink-absorbing layer and 10-150% (based on SiO2) of a water-insol. and alc.-sol. polymer with coating amt. 0.3 g/m2. The water-sol. polymer may be obtained from CH2:CR1COQ(CH2)nN+R2R3R4.X-, a styrene deriv. I, or CH2:CHCH2N+R2R3R4.X- (R1 = H, Me; R2-7 = Me, Et; R8-10 = Me, Et, allyl; Q = O, NH; X = halogen ion, sulfonic acid anion, alkylsulfonic acid anion, MeCO2-, alkylcarboxylic acid anion; n = 2, 3). The material showed good water resistance.

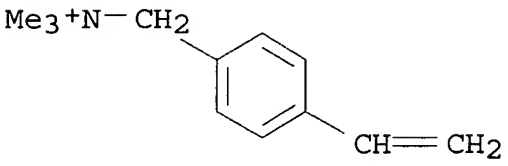
IT **73363-10-7**
(ink-absorbing layer; **ink-jet** **printing** sheet coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)

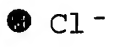
RN 73363-10-7 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

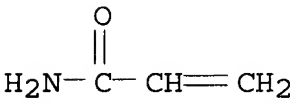
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41M005-00
ICS D21H019-38; D21H019-44
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
ST **ink jet printing** sheet transparency; luster **ink jet** recording sheet; silica coating **jet printing** sheet
IT Polyamides, processes
(**ink-jet printing** sheet coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)
IT **Printing**, nonimpact
(**ink-jet**, **ink-jet printing** sheet coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)
IT 7631-86-9, Silica, uses
(Silysia 358; **ink-jet printing** sheet coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)
IT 147705-51-9, Crotonic acid-vinyl acetate copolymer
(Vinylol 30; **ink-jet printing** sheet

coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)

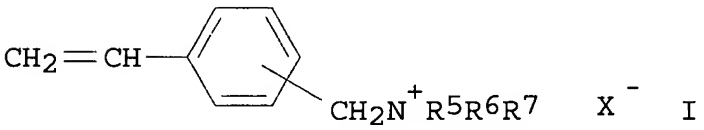
IT 26590-05-6, Acrylamide-diallyldimethylammonium chloride copolymer **73363-10-7** 75150-29-7 172785-52-3 172785-53-4
(ink-absorbing layer; **ink-jet printing** sheet coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)

IT 79-39-0D, Methacrylamide, polymers 88-12-0D, polymers 818-61-1D, 2-Hydroxyethyl acrylate, polymers 923-26-2D, 2-Hydroxypropyl methacrylate, polymers 924-42-5D, N-Methylolacrylamide, polymers 999-61-1D, 2-Hydroxypropyl acrylate, polymers 2210-25-5D, N-Isopropylacrylamide, polymers 2680-03-7D, N,N-Dimethylacrylamide, polymers 2873-97-4D, Diacetone acrylamide, polymers 9003-20-7, Poly(vinyl acetate) 9086-85-5, Poly(hydroxypropyl methacrylate) 25067-34-9, Ethylene-vinyl alcohol copolymer 25087-26-7, Poly(methacrylic acid) 25249-16-5 25897-89-6, Poly(diacetone acrylamide)
(**ink-jet printing** sheet coated with silica-contg. water-insol. and alc.-sol. polymer overcoat layer with luster and good transparency)

L31 ANSWER 14 OF 18 HCA COPYRIGHT 2003 ACS

124:131577 **Ink-jet** recording material with good gloss and transparency. Sekine, Mikya; Furukawa, Akira (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07266686 A2 19951017 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-57636 19940328.

GI



I

AB The material has a support having an ink-absorbing layer contg. a water-sol. quaternary ammonium salt-contg. polymer coated with a layer contg. SiO2 fine particles and 10-150 wt.% p-vinylphenol copolymer. The water-sol. quaternary ammonium salt-contg. polymer may be obtained by polymn. of CH2:C(R1)C(:O)Q(CH2)nN+R2R3R4.X-, I, and/or CH2:CHCH2N+R8R9R10.X- (R1 = H, Me; Q = O, NH; R2-7 = Me, Et; X- = halogen ion, SO3-, alkylsulfonic acid anion, AcO-, alkylcarboxylic acid anion; n = 2, 3; R8-10 = Me, Et, allyl). The material shows good transparency and water resistance.

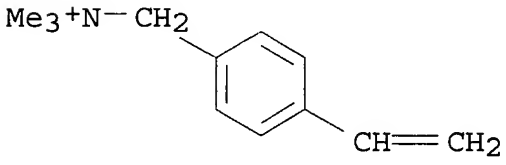
IT **73363-10-7P**, Acrylamide-p-vinylbenzyltrimethylammonium chloride copolymer **172785-56-7P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-p-vinylbenzyltrimethylammonium chloride copolymer **172785-58-9P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl

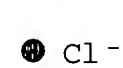
methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-p-vinylbenzyltrimethylammonium chloride copolymer (**ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)

RN 73363-10-7 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

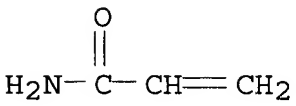
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

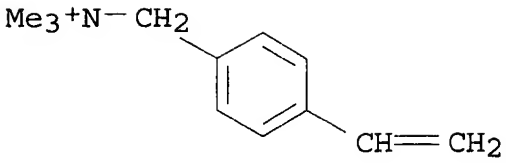
CRN 79-06-1
CMF C3 H5 N O

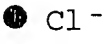


RN 172785-56-7 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

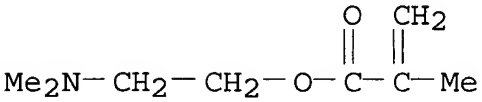
CRN 7538-38-7
CMF C12 H18 N . Cl





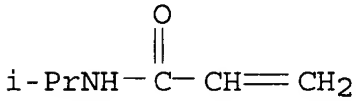
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



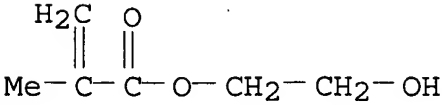
CM 3

CRN 2210-25-5
CMF C6 H11 N O



CM 4

CRN 868-77-9
CMF C6 H10 O3

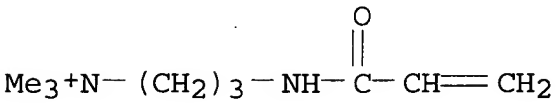


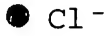
RN 172785-58-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, N-(1-methylethyl)-2-propenamide and N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-1-propanaminium chloride

(9CI) (CA INDEX NAME)

CM 1

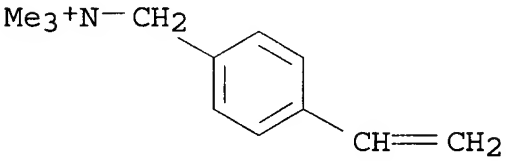
CRN 45021-77-0
CMF C9 H19 N2 O . Cl

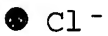




CM 2

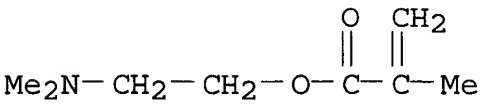
CRN 7538-38-7
CMF C12 H18 N . Cl





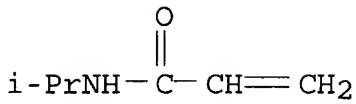
CM 3

CRN 2867-47-2
CMF C8 H15 N O2



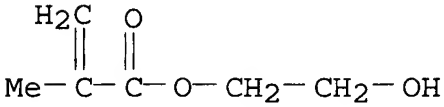
CM 4

CRN 2210-25-5
CMF C6 H11 N O



CM 5

CRN 868-77-9
CMF C6 H10 O3



IC ICM B41M005-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **ink jet** recording vinylphenol polymer overcoat; gloss **ink jet** recording material; transparency **ink jet** recording material; water resistance **ink jet** recording
IT Ionomers
(**ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)
IT **Printing**, nonimpact
(**ink-jet**, **ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)
IT 74696-50-7
(curing agent; **ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)
IT 24979-70-2, Maruka Lyncur M 24979-71-3, Maruka Lyncur CMM 24979-75-7, Styrene-p-vinylphenol copolymer 110123-09-6, Maruka Lyncur CHM
(**ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)
IT 26590-05-6P, Acrylamide-diallyldimethylammonium chloride copolymer **73363-10-7P**, Acrylamide-p-vinylbenzyltrimethylammonium chloride copolymer 75150-29-7P, Acrylamide-trimethyl-3-(acryloylamino)propylammonium chloride copolymer 172785-52-3P, Acrylamide-(N,N-dimethylaminopropyl)acrylamide-2-hydroxyethyl methacrylate-trimethyl-3-(acryloylamino)propylammonium chloride copolymer 172785-53-4P, Acrylamide-N,N-dimethylaminopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-trimethyl-2-

(methacryloyloxy)ethylammonium chloride copolymer 172785-54-5P, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride copolymer 172785-55-6P, N,N-Dimethylaminoethyl methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-trimethyl-2-(methacryloyloxy)ethylammonium chloride copolymer **172785-56-7P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-p-vinylbenzyltrimethylammonium chloride copolymer 172785-57-8P, N,N-Dimethylaminoethyl methacrylate-diallyldimethylammonium chloride-2-hydroxyethyl methacrylate-isopropylacrylamide copolymer **172785-58-9P**, N,N-Dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isopropylacrylamide-trimethyl-3-(acryloylamino)propylammonium chloride-p-vinylbenzyltrimethylammonium chloride copolymer
(**ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)

IT 7631-86-9, Silica, uses
(overcoat layer; **ink-jet** recording material having vinylphenol copolymer overcoat layer with good gloss and transparency)

L31 ANSWER 15 OF 18 HCA COPYRIGHT 2003 ACS

124:131568 **Ink-jet** recording receptor with good transparency and glossiness. Furukawa, Akira; Kato, Makoto (Mitsubishi Paper Mills Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07242057 A2 19950919 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-33698 19940303.

AB The receptor comprises on a support successively (1) an ink-absorbing layer contg. a water-sol. polymer with quaternary ammonium salt group and (2) a layer contg. silica fine particles and a water and alc.-sol. polymer 10-150% of silica with ink-layer coverage of the polymer .ltoreq.0.38/m2 and the silica particles in the range of 5-50%. The receptor shows good ink absorption, high glossiness, transparency and water-resistance.

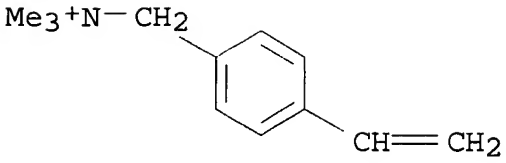
IT **73363-10-7 173341-86-1 173341-89-4**
(**ink-jet** recording receptor with ink-absorbing layer contg. polymer with quaternary ammonium group)

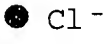
RN 73363-10-7 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

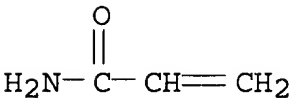
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

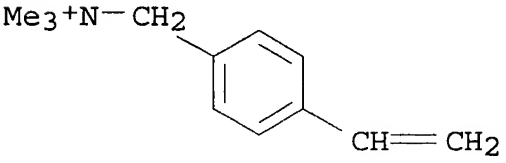
CRN 79-06-1
CMF C3 H5 N O

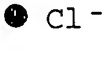


RN 173341-86-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with N,N-dimethyl-N-2-propenyl-2-propen-1-aminium chloride and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

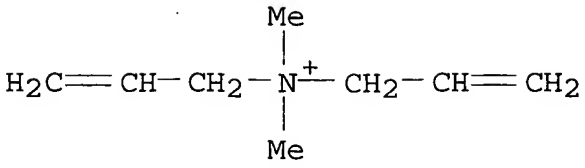
CRN 7538-38-7
CMF C12 H18 N . Cl

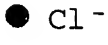




CM 2

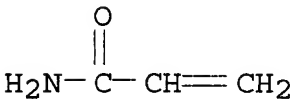
CRN 7398-69-8
CMF C8 H16 N . Cl





CM 3

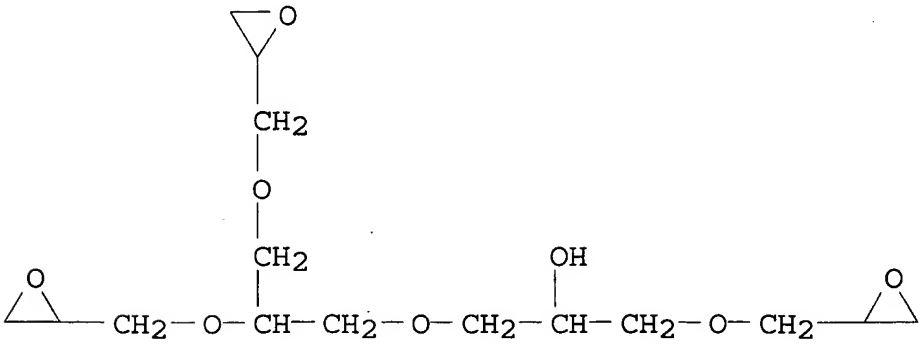
CRN 79-06-1
CMF C3 H5 N O



RN 173341-89-4 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 1-[2,3-bis(oxiranylmethoxy)propoxy]-3-(oxiranylmethoxy)-2-propanol, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N,N-dimethyl-2-propenamide and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

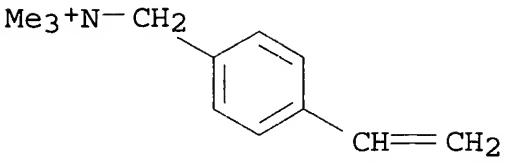
CRN 74696-50-7
CMF C15 H26 O8

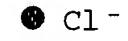


CM 2

CRN 7538-38-7

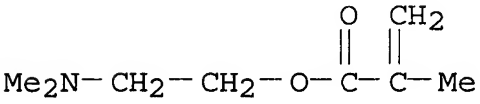
CMF C12 H18 N . Cl





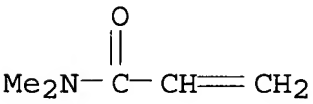
CM 3

CRN 2867-47-2
CMF C8 H15 N O2



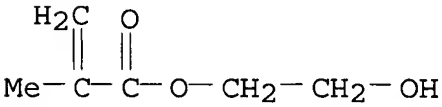
CM 4

CRN 2680-03-7
CMF C5 H9 N O



CM 5

CRN 868-77-9
CMF C6 H10 O3



IC ICM B41M005-00
ICS D21H019-38; D21H019-44
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **ink jet** recording receptor silica; ammonium salt polymer recording receptor

IT **Printing**, nonimpact
(**ink-jet**, **ink-jet** recording receptor with high transparency and glossiness.)

IT **73363-10-7** 75150-29-7 172785-52-3 173341-85-0 **173341-86-1** 173341-87-2 173341-88-3 **173341-89-4** 173341-90-7
(**ink-jet** recording receptor with ink-absorbing layer contg. polymer with quaternary ammonium group)

IT 90-47-1, Xanthone 7631-86-9, Silica, uses 9003-01-4, Poly(acrylic acid) 9003-39-8, Polyvinylpyrrolidone 9004-62-0, Hydroxyethylcellulose 28500-83-6, Acrylamide-N-isopropylacrylamide copolymer
(**ink-jet** recording receptor with overcoat layer contg. silica)

L31 ANSWER 16 OF 18 HCA COPYRIGHT 2003 ACS

123:127770 **Ink jet** recording medium.. Furukawa, Akira; Kato, Makoto (Mitsubishi Paper Mills, Ltd., Japan). Eur. Pat. Appl. EP 627324 A1 19941207, 28 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1994-108527 19940603. PRIORITY: JP 1993-133151 19930603; JP 1993-133152 19930603.

AB An **ink jet** recording medium is obtained by coating a support with a mixt. of 100 parts by wt. of a H2O-sol. polymer and 0.1-30 parts by wt. of a crosslinking agent such as an epoxy or triazine crosslinking agent, the H2O-sol. polymer being obtained by copolymg. 10-50 parts by wt. of a quaternary salt monomer selected from trimethyl-3-(acryloylamino)-propylammonium chloride, trimethyl-2-(methacryloyloxy)ethylammonium chloride, etc., 1-30 parts by wt. of an amino group-contg. monomer selected from diemthylaminopropylacrylamide, dimethylaminoethyl methacrylate, etc. or a carboxyl group-contg. monomer selected from acrylic acid, methacrylic acid, etc. and 20-80 wt. parts of a monomer selected from acrylamide, 2-hydroxyethyl(meth)acrylate, N-vinylpyrrolidone, etc. The medium is capable of providing recorded images of excellent H2O resistance.

IT **166032-14-0 166032-24-2 166241-17-4**
(coating for **ink jet printing** medium)

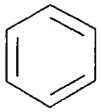
RN 166032-14-0 HCA

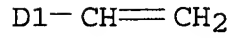
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 4,6-dichloro-1,3,5-triazin-2(1H)-one sodium salt, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide and ar-ethenyl-N,N-diethylbenzenemethanamine (9CI) (CA INDEX NAME)

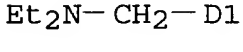
CM 1

CRN 30179-69-2
CMF C13 H19 N

CCI IDS

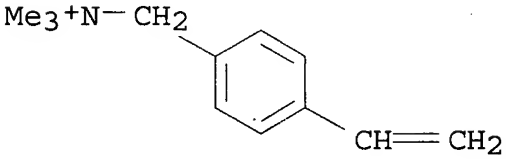


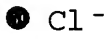




CM 2

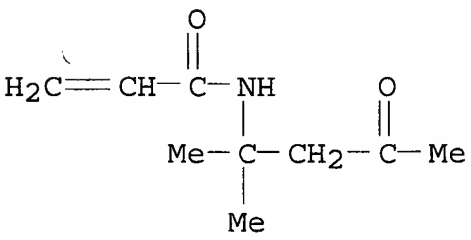
CRN 7538-38-7
CMF C12 H18 N . Cl





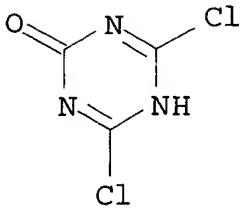
CM 3

CRN 2873-97-4
CMF C9 H15 N O2



CM 4

CRN 2736-18-7
CMF C3 H Cl2 N3 O . Na

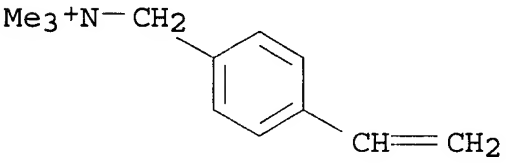


Na

RN 166032-24-2 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 4,6-dichloro-1,3,5-triazin-2(1H)-one sodium salt, N,N-dimethyl-2-propenamide, 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

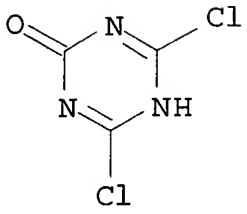
CM 1

CRN 7538-38-7
CMF C12 H18 N . Cl



CM 2

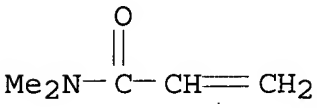
CRN 2736-18-7
CMF C3 H Cl2 N3 O . Na



Na

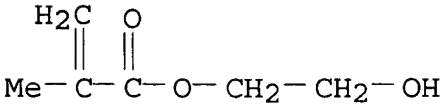
CM 3

CRN 2680-03-7
CMF C5 H9 N O



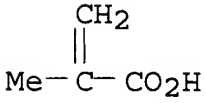
CM 4

CRN 868-77-9
CMF C6 H10 O3



CM 5

CRN 79-41-4
CMF C4 H6 O2

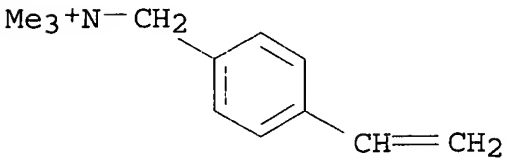


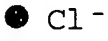
RN 166241-17-4 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with N,N-dimethyl-2-propenamide, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid and 1,2,3-propanetriol

homopolymer oxiranylmethyl ether (9CI) (CA INDEX NAME)

CM 1

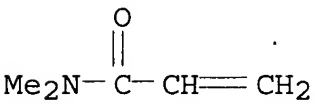
CRN 7538-38-7
CMF C12 H18 N . Cl





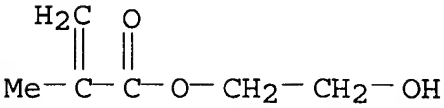
CM 2

CRN 2680-03-7
CMF C5 H9 N O



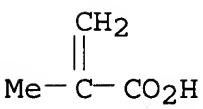
CM 3

CRN 868-77-9
CMF C6 H10 O3



CM 4

CRN 79-41-4
CMF C4 H6 O2

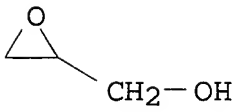


CM 5

CRN 118549-88-5
CMF (C3 H8 O3)x . x C3 H6 O2

CM 6

CRN 556-52-5
CMF C3 H6 O2

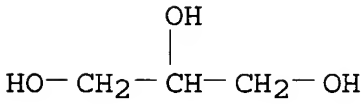


CM 7

CRN 25618-55-7
CMF (C3 H8 O3)x
CCI PMS

CM 8

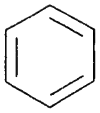
CRN 56-81-5
CMF C3 H8 O3



IT **166241-07-2**
(sto coating for **ink jet printing** medium)
RN 166241-07-2 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, ar-ethenyl-N,N-diethylbenzenemethanamine and 1,2,3-propanetriol homopolymer oxiranylmethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 30179-69-2
CMF C13 H19 N
CCI IDS

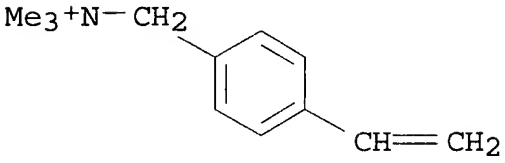


D1— CH═ CH_2

Et_2N— CH_2— D1

CM 2

CRN 7538-38-7
CMF C12 H18 N . Cl



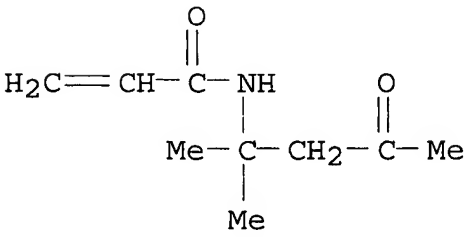
$Me_3{}^+N$— CH_2

CH═ CH_2

● Cl^-

CM 3

CRN 2873-97-4
CMF C9 H15 N O2



H_2C═ CH— C(=O)— NH— C(Me)(Me)— CH_2— C(=O)— Me

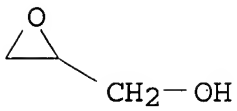
CM 4

CRN 118549-88-5

CMF (C3 H8 O3)x . x C3 H6 O2

CM 5

CRN 556-52-5
CMF C3 H6 O2

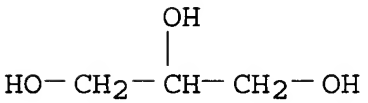


CM 6

CRN 25618-55-7
CMF (C3 H8 O3)x
CCI PMS

CM 7

CRN 56-81-5
CMF C3 H8 O3



IC ICM B41M005-00
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
ST **ink jet** recording polymer coating
IT **Printing**, nonimpact
(**ink-jet**, acrylic polymer coating)
IT Paper
(**printing**, **ink jet**; coating for **ink jet printing** medium)
IT 166032-04-8 166032-05-9 166032-06-0 166032-07-1 166032-08-2
166032-09-3 166032-10-6 166032-11-7 166032-12-8 166032-13-9
166032-14-0 166032-15-1 166032-16-2 166032-17-3
166032-18-4 166032-19-5 166032-20-8 166032-21-9 166032-22-0
166032-23-1 **166032-24-2** 166240-97-7 166240-98-8
166240-99-9 166241-00-5 166241-01-6 166241-02-7 166241-03-8
166241-04-9 166241-05-0 166241-06-1 166241-08-3 166241-09-4
166241-10-7 166241-11-8 166241-12-9 166241-13-0 166241-14-1
166241-15-2 166241-16-3 **166241-17-4**
(coating for **ink jet printing** medium)
IT **166241-07-2**

(sto coating for **ink jet printing** medium)

L31 ANSWER 17 OF 18 HCA COPYRIGHT 2003 ACS
113:61490 **Jet-printing inks** with electrically controllable flow. Murakami, Kakuji; Nagai, Kiyofumi (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02029474 A2 19900131 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-178221 19880719.

AB Ionic dielec. polarizable polymer granules are dyed with dyes having opposite polarity and dispersed or suspended in insulating liqs. having elec. resistance .gtoreq.105 .OMEGA.-cm to prep. the title inks. Thus, 8 parts 100:3 Na methacrylate-N,N'-methylenebisacrylamide copolymer granules were treated with 100 parts H2O contg. 4 parts Basic Blue 3, dried, and milled (25 parts) with 75 parts bromonaphthalene to prep. an ink.

IT **128493-33-4**
(granule, dyed, in **jet-printing inks**)

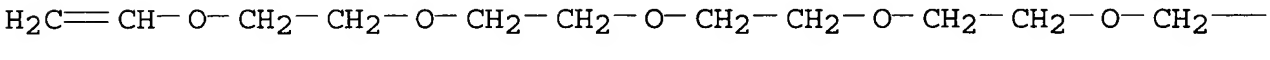
RN 128493-33-4 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 3,6,9,12,15,18-hexaoxaeicosa-1,19-diene (9CI) (CA INDEX NAME)

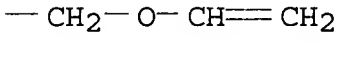
CM 1

CRN 83482-31-9
CMF C14 H26 O6

PAGE 1-A

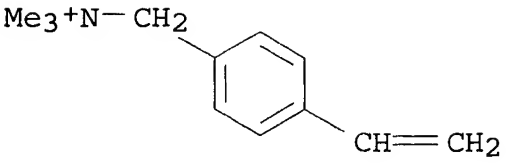


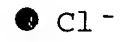
PAGE 1-B



CM 2

CRN 7538-38-7
CMF C12 H18 N . Cl





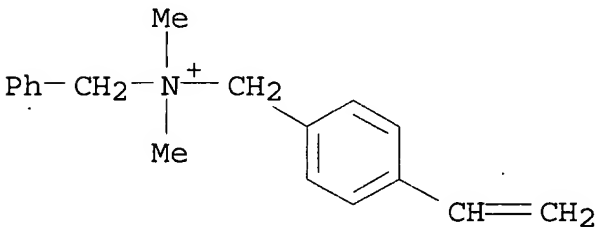
IC ICM C09D011-02
CC 42-12 (Coatings, Inks, and Related Products)
ST elec control flow ink; **jet printing ink** ; methacrylate methylenebisacrylamide copolymer ink; dye **jet printing ink**
IT Dyes
(basic, for dielec. polarizable polymer granules, in **jet -printing inks**)
IT **Inks**
(**jet-printing**, contg. dielec. polarizable dyed polymer granules, with controllable flow)
IT 27360-85-6 55840-82-9, Basic blue 3
(dyes, for dielec. polarizable polymer granules, in **jet -printing inks**)
IT **128493-33-4**
(granule, dyed, in **jet-printing inks**)
IT 106207-11-8
(granule, dyed, in **jet-printing inks** contg. bromonaphthalene)
IT 1330-78-5, Tricresyl phosphate 27497-51-4, Bromonaphthalene
(**jet-printing inks**, contg. dielec. polarizable dyed polymer granules)

L31 ANSWER 18 OF 18 HCA COPYRIGHT 2003 ACS
111:59861 Printing paper for water-based inks. Yoshida, Masatoshi; Matsunaga, Toshiaki; Izumibayashi, Masuji (Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63260477 A2 19881027 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1987-93230 19870417.
AB Title material, useful for **ink-jet printing**, contains C6-18 alkyl-terminated polyamine surfactants. Thus, a high-quality paper was impregnated with 0.5% aq. C12H25S[CH2CH(CONHCH2CH2CH2NMe2)]nH (av. mol. wt. 1000) and dried to give a title material, which was **ink-jet -printed** by using a water-based ink contg. magenta to give light- and water-resistant dots without blurring.
IT **114783-41-4D**, [2-(octyloxy)-2-oxoethyl]thio-terminated
(surfactants, paper contg., for **ink-jet**

printing with water-based inks)
RN 114783-41-4 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 66099-76-1
CMF C18 H22 N . Cl



● Cl⁻

IC ICM B41M005-00
ICS D21H001-34; D21H003-48; D21H005-00
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 42
ST printing paper water based ink; surfactant paper **ink jet printing**; polyamine surfactant paper blurring resistance
IT Surfactants
(for papers, for **ink-jet printing** with water-based inks)
IT Paper
(surfactants for, alkyl-terminated polyamines as, for **ink-jet printing** with water-based inks)
IT Quaternary ammonium compounds, polymers
(polymers, surfactants, papers contg., for **ink-jet printing** with water-based inks)
IT 632-99-5, Magenta
(inks contg., for **ink-jet printing** on papers contg. polyamine surfactants, for light- and water-resistant images)
IT 26062-79-3D, (dodecylamino)carbonyloxy-terminated 27754-92-3D, dodecylthio-terminated 35429-19-7D, dodecylthio-terminated 105137-58-4D, (dodecylamino)carbonyloxy-terminated **114783-41-4D**, [2-(octyloxy)-2-oxoethyl]thio-terminated 121783-79-7D, [2-[(octadecylamino)carbonyloxy]ethyl]thio-terminated
(surfactants, paper contg., for **ink-jet printing** with water-based inks)

=> d l32 1-11 cbib abs hitstr hitind

L32 ANSWER 1 OF 11 HCA COPYRIGHT 2003 ACS
136:361831 Photosensitive lithographic **printing** plate.
Oshima, Yasuhito (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1204000 A1 20020508, 49 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW.
APPLICATION: EP 2001-125486 20011106. PRIORITY: JP 2000-337688 20001106.

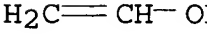
AB A photosensitive lithog. **printing** plate is described which is useful for direct-laser write applications and provides durable **prints** under high productivity conditions. The plate contains a photosensitive layer contg. a **poly(vinyl alc.)** **resin** binder modified with an acetal skeleton comprising an aliph. cyclic structure. The photosensitive also contains: a photopolymn. initiator, a heat polymn. initiator, an addn. polymerizable compd., a sensitizer dye, a co-sensitizer dye, a color pigment, a fluorine-based surfactant, an IR absorber.

IT **9002-89-5D, Poly(vinyl alcohol)**, sapond., reaction product with cyclohexanecarboxy aldehyde and cyclohexanedicarboxylic anhydride
(photosensitive coating binder; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



IT **9002-89-5, Poly(vinyl alcohol)**
(protective film; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

$H_2C{=}CH{-}OH$

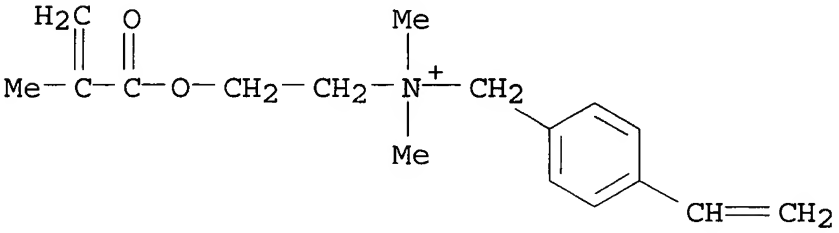
IT **142938-52-1**
(substrate interlayer sol compn.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

RN 142938-52-1 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 111590-82-0
CMF C17 H24 N O2 . Cl



● Cl^-

IC ICM G03F007-033
ICS B41C001-10

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photosensitive lithog **printing** plate acetal modified **polyvinyl alc** binder; aliph cyclic structure modified **polyvinyl alc** binder **printing** plate

IT Lithographic plates
(neg.-working presensitized; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT Polyurethanes, uses
(photosensitive coating binder mixt.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 64-02-8 102-71-6, Triethanolamine, uses 141-43-5, Monoethanolamine, uses 298-14-6 1312-76-1, Potassium silicate 1321-69-3 5968-11-6, Sodium carbonate monohydrate 7757-83-7,

Sodium sulfite 25417-20-3, Sodium dibutylnaphthalene sulfonate 25638-17-9 28348-64-3, Sodium isopropylnaphthalene sulfonate 126305-25-7 421557-82-6
(developer compn.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 134127-48-3
(photosensitive coating IR absorber; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 4986-89-4, NK ester A-TMMT 29570-58-9, NK ester A-9530 139385-71-0, US 101H
(photosensitive coating addn. polymerizable compd.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 141634-00-6, Methyl methacrylate-acrylonitrile-N-[(4-sulfamoyl)phenyl]methacrylamide copolymer 293329-29-0, MDI-HMDI-polypropylene glycol-2,2-bis(hydroxymethyl)propionic acid copolymer
(photosensitive coating binder mixt.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 85-42-7D, 1,2-Cyclohexanedicarboxylic anhydride, reaction products with **poly(vinyl alc.)** and cyclohexanecarboxy aldehyde 2043-61-0D, Cyclohexanecarboxaldehyde, reaction product with **poly(vinyl alc.)** and cyclohexanedicarboxylic anhydride **9002-89-5D**, **Poly(vinyl alcohol)**, sapond., reaction product with cyclohexanecarboxy aldehyde and cyclohexanedicarboxylic anhydride
(photosensitive coating binder; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 583-39-1 120307-06-4 293329-35-8
(photosensitive coating co-initiator; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 120457-86-5
(photosensitive coating heat polymn. inhibitor; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

IT 13891-29-7 220476-51-7 262612-33-9
(photosensitive coating heat polymn. initiator; lithog. **printing** plate for direct-write with photosensitive layer

contg. **poly(vinyl alc.)** binder
modified with acetal skeleton having aliph. cyclic structure)
IT 125051-32-3 125407-19-4
(photosensitive coating photopolymn. initiator; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder
modified with acetal skeleton having aliph. cyclic structure)
IT 118234-41-6 421548-66-5
(photosensitive coating sensitizer dye; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with
acetal skeleton having aliph. cyclic structure)
IT 85568-56-5, Megafac F-177 335612-65-2, Victoria pure blue naphthalenesulfonate
(photosensitive coating; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal
skeleton having aliph. cyclic structure)
IT **9002-89-5, Poly(vinyl alcohol)**
(protective film; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal
skeleton having aliph. cyclic structure)
IT 6834-92-0
(substrate hydrophilic treatment; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with
acetal skeleton having aliph. cyclic structure)
IT 86468-54-4, Ethyl methacrylate-sodium 2-acrylamido-2-methyl-1-propanesulfonate copolymer 141087-50-5, 3-Methacryloxypropyl trimethoxysilane-Tetraethoxysilane copolymer **142938-52-1**
(substrate interlayer sol compn.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with
acetal skeleton having aliph. cyclic structure)
IT 67-56-1, Methanol, uses 107-21-1, Ethylene glycol, uses
(substrate interlayer sol compn.; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with
acetal skeleton having aliph. cyclic structure)
IT 7429-90-5, Aluminum, uses
(substrate; lithog. **printing** plate for direct-write with photosensitive layer contg. **poly(vinyl alc.)** binder modified with acetal skeleton having aliph. cyclic structure)

L32 ANSWER 2 OF 11 HCA COPYRIGHT 2003 ACS
135:68568 Negative working lithographic **printing** plate with overcoat layer. Aoshima, Keitaro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001166461 A2 20010622, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-349892 19991209.
AB The material comprises a support having thereon a photosensitive

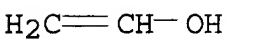
layer contg. an IR absorber, an onium salt, and a radical polymn. compd., and a binder polymer and an overcoat layer contg. a **poly(vinyl alc.)** and a water sol. polymer without OH in a mol. in succession. The material is useful for direct image formation by digital data using IR laser and shows good ink adhesion and storage stability.

IT **9002-89-5**, **Poly(vinyl alcohol)**
345580-64-5
(overcoat layer; neg.-working lithog. plate overcoat layer contg. water-sol. polymer)

RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

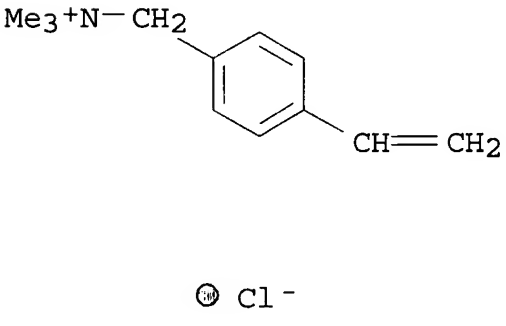
CRN 557-75-5
CMF C2 H4 O



RN 345580-64-5 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

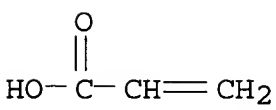
CM 1

CRN 7538-38-7
CMF C12 H18 N . Cl



CM 2

CRN 79-10-7
CMF C3 H4 O2

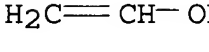


IC ICM G03F007-00
ICS B41N001-14; G03F007-027; G03F007-029; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT **9002-89-5**, **Poly(vinyl alcohol)**
86468-54-4, Ethyl methacrylate-sodium 2-acrylamido-2-methyl-1-propanesulfonate copolymer **345580-64-5**
(overcoat layer; neg.-working lithog. plate overcoat layer contg. water-sol. polymer)

L32 ANSWER 3 OF 11 HCA COPYRIGHT 2003 ACS
133:178442 Laminated polyester films with excellent adhesion to water-thinned coatings. Furukawa, Akira; Miyake, Taiji (Mitsubishi Paper Mills, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000229396 A2 20000822, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-347322 19991207. PRIORITY: JP 1998-352444 19981211.
AB The films, useful for **recording** materials, have .gtoreq.1 undercoat layers contg. self-emulsifying compds. with ethylene oxide units and .gtoreq.2 isocyanate groups on polyester films. Thus, a Permarin UA 200 (polyurethane emulsion) contg. 10% Duranate WB 40-80 (self-emulsifying isocyanate compd.) was applied to a PET film and coated with a gelatin soln. (contg. HCHO) to give a test piece showing good interlayer adhesion after immersion in a NaOH soln. or DMF.
IT **9002-89-5**, **Poly(vinyl alcohol)**
288256-95-1
(undercoating; polyester films having self-emulsifying isocyanate layers with good adhesion to water-thinned coatings)
RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

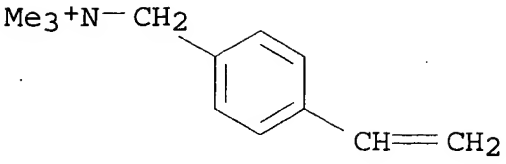
CRN 557-75-5
CMF C2 H4 O

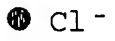


RN 288256-95-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 2,3-dihydroxypropyl 2-methyl-2-propenoate and N,N-dimethyl-N-2-propenyl-2-propen-1-aminium chloride (9CI) (CA INDEX NAME)

CM 1

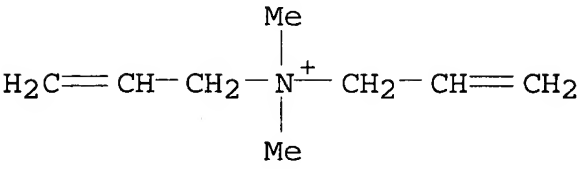
CRN 7538-38-7
CMF C12 H18 N . Cl

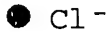




CM 2

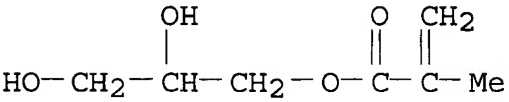
CRN 7398-69-8
CMF C8 H16 N . Cl





CM 3

CRN 5919-74-4
CMF C7 H12 O4



IC ICM B32B027-36
ICS B32B027-40; B41M005-00; C08J007-04; C09D127-08; C09D175-04; C09D189-00; G03C001-795; G03C001-89; G03C001-91; C08L067-02
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 42
IT 148196-00-3, Elastron BN 44
(crosslinking agent for **polyvinyl alc.**; polyester films having self-emulsifying isocyanate layers with good adhesion to water-thinned coatings)
IT **9002-89-5**, **Poly(vinyl alcohol)**
9011-06-7, Saran L 536B 71010-52-1, Kelcogel 124760-19-6,

Permarin UA 200 210823-95-3, Permarin UA 310 280746-99-8, Duranate WB 40-80 280747-02-6, Duranate WX 1741 **288256-95-1**
(undercoating; polyester films having self-emulsifying isocyanate layers with good adhesion to water-thinned coatings)

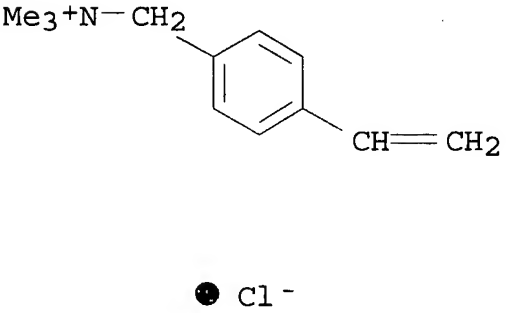
L32 ANSWER 4 OF 11 HCA COPYRIGHT 2003 ACS
132:209114 Ink-receptive heat transfer elements comprising a support having a coating layer containing hydrophilic film-forming binders for transferring images to fabrics at 100-170.degree.. Shaw-Klein, Lori J.; Malcolm, Audry A.; Bugner, Douglas E. (Eastman Kodak Company, USA). U.S. US 6036808 A 20000314, 4 pp. (English). CODEN: USXXAM. APPLICATION: US 1997-904108 19970731.

AB The ink-receptive elements comprise a support having release properties and an ink-receptive coating contg. a hydrophilic film-forming binder and a crosslinker and are useful for transferring images to fabrics at 100-170.degree.. A resin-coated paper was coated with a compn. contg. **poly(vinyl alc.)** 45, crosslinked vinylbenzylammonium chloride polymer 10, and Witcobond W-213 (polyurethane) 45%, **printed** with a photoink to form an image, and pressed together with a cotton-polyester blend fabric at 120.degree. using a household iron to give a **printed** fabric with excellent image qualities.

IT **7538-38-7D**, polymers
(crosslinking agents; ink-receptive heat transfer elements comprising a support having a coating layer contg. hydrophilic film-forming binders for transferring images to fabrics at 100-170.degree.)

RN 7538-38-7 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



IT **9002-89-5, Poly(vinyl alcohol)**
(hydrophilic coating; ink-receptive heat transfer elements comprising a support having a coating layer contg. hydrophilic film-forming binders for transferring images to fabrics at 100-170.degree.)

RN 9002-89-5 HCA

CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

$H_2C{=}CH{-}OH$

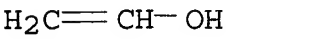
IC ICM B41M005-00
NCL 156235000
CC 40-6 (Textiles and Fibers)
ST heat receptive element fabric transfer **printing**; **polyvinyl alc** binder fabric transfer **printing**; vinylbenzylammonium chloride polymer coating fabric transfer **printing**; polyurethane coating fabric transfer **printing**; cotton polyester blend fabric transfer **printing**
IT Textile **printing**
(transfer; ink-receptive heat transfer elements comprising a support having a coating layer contg. hydrophilic film-forming binders for transferring images to fabrics at 100-170.degree.)
IT **7538-38-7D**, polymers
(crosslinking agents; ink-receptive heat transfer elements comprising a support having a coating layer contg. hydrophilic film-forming binders for transferring images to fabrics at 100-170.degree.)
IT **9002-89-5**, **Poly(vinyl alcohol)**
(hydrophilic coating; ink-receptive heat transfer elements comprising a support having a coating layer contg. hydrophilic film-forming binders for transferring images to fabrics at 100-170.degree.)

L32 ANSWER 5 OF 11 HCA COPYRIGHT 2003 ACS
132:158910 Erasable image-forming material. Takayama, Satoshi; Machida, Shigeru; Sano, Kenji; Tsunemi, Koichi; Sato, Shuitsu; Ikeda, Naru; Urano, Taeko (Kabushiki Kaisha Toshiba, Japan). Eur. Pat. Appl. EP 980028 A1 20000216, 52 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-115057 19990804. PRIORITY: JP 1998-220468 19980804; JP 1998-220501 19980804.
AB An erasable image-forming material includes a color former, a developer, a binder resin, and a polymer decolorizer having an electron-donating group capable of phys. or chem. adsorbing the developer. This polymer decolorizer preferably has a sugar skeleton, such as starch. The image-forming material can form sharp images and erase images by heat or a solvent to achieve a good erased state.
IT **9002-89-5**, **Poly(vinyl alcohol)**
49718-56-1
(erasable color electrophotog. toners contg.)
RN 9002-89-5 HCA

CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

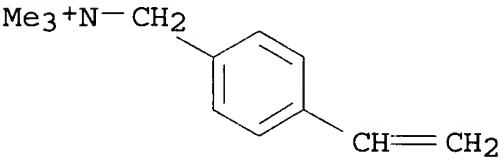
CRN 557-75-5
CMF C2 H4 O



RN 49718-56-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, homopolymer (9CI) (CA INDEX NAME)

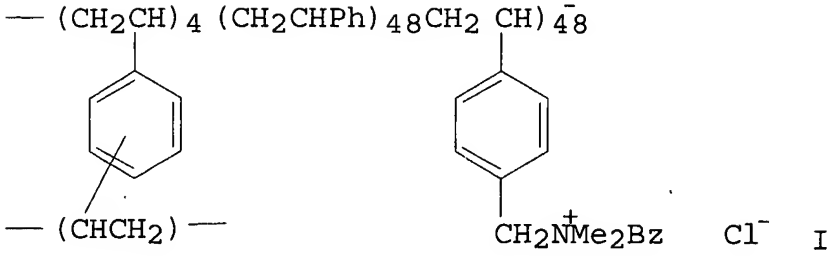
CM 1

CRN 46231-82-7
CMF C12 H18 N



IC ICM G03G009-09
ICS C09D011-00; B41M005-128; B41M007-00
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST erasable color forming **recording** material polymer decolorizer
IT Electrophotographic toners
Thermal-transfer **printing** materials
(contg. polymer decolorizers for erasing colored images formed therefrom)
IT 57-88-5, Cholesterol, uses 81-25-4, Cholic acid 83-46-5, .beta.-Sitosterol 145-13-1, Pregnenolone **9002-89-5**, **Poly(vinyl alcohol)** 9004-35-7, Cellulose acetate 25232-41-1 **49718-56-1** 106673-76-1
(erasable color electrophotog. toners contg.)

L32 ANSWER 6 OF 11 HCA COPYRIGHT 2003 ACS
103:79519 Photosensitive resin composition. (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60003623 A2 19850110 Showa, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-111710 19830621.
GI



I

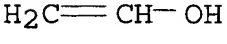
AB A photosensitive resin compn. contains a cationic latex polymer, a H2O-sol. ethylenic compd. having anionic groups, and a photoinitiator. The compn. is useful in prepn. of **printing** plates and **printed** circuits and can be developed using H2O, without using org. solvents. Development gives hardened, hydrophobic surface, which is mech. durable. Thus, a surface-treated and anodized Al plate was coated with a compn. contg. a latex copolymer (10% solids) having the formula I 45, 2-acrylamido-2-methylpropanesulfonic acid 4.5, diisopropylthioxanthone 0.5, isoamyl dimethylaminobenzoate 0.5, methyl Cellosolve 4, and H2O 50 parts. After imagewise exposure, the plate was rubbed with a sponge soaked with H2O to remove the unexposed parts. The obtained plate gave >20,000 good **prints**.

IT **9002-89-5**
(water-developable photosensitive resin compns. contg. cationic latex copolymer, water-sol. ethylenic anionic compd., photoinitiator and, for prepn. of lithog. plates and **printed** elec. circuits)

RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

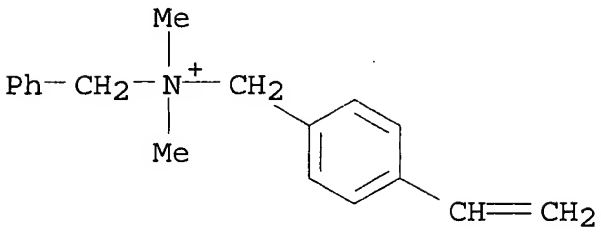


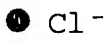
IT **74443-77-9**
(water-developable photosensitive resin compns. contg. water-sol. ethylenic anionic compds., photoinitiator and, for fabrication of lithog. plates and **printed** circuits)

RN 74443-77-9 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N-dimethyl-N-(phenylmethyl)-, chloride, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

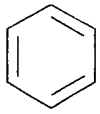
CRN 66099-76-1
CMF C18 H22 N . Cl

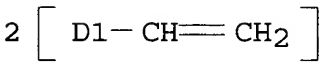




CM 2

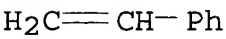
CRN 1321-74-0
CMF C10 H10
CCI IDS





CM 3

CRN 100-42-5
CMF C8 H8



IC ICM G03C001-68
ICS C08F002-48; G03F007-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Lithographic plates
Printing plates
(water-developable photosensitive resin compns. contg. cationic

latex polymer, water-sol. ethylenic anionic compd. and photoinitiator for)

IT Electric circuits
(**printed**, water-developable photosensitive resin compns. contg. cationic latex polymer, water-sol. ethylenic anionic compd. and photoinitiator for)

IT 109-86-4 **9002-89-5**
(water-developable photosensitive resin compns. contg. cationic latex copolymer, water-sol. ethylenic anionic compd., photoinitiator and, for prepn. of lithog. plates and **printed** elec. circuits)

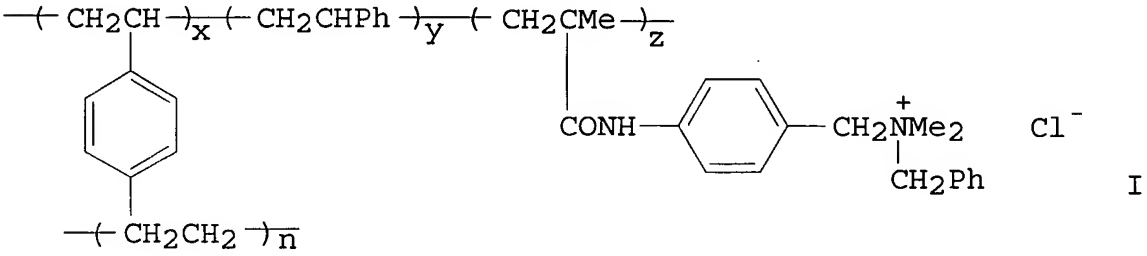
IT 15214-89-8 53232-34-1
(water-developable photosensitive resin compns. contg. cationic latex polymer, photoinitiator and, for prepn. of lithog. plates and **printed** elec. circuits)

IT 82612-95-1 88004-52-8
(water-developable photosensitive resin compns. contg. cationic latex polymer, water-sol. ethylenic anionic compd. and, for prepn. of lithog. plate and **printed** elec. circuits)

IT **74443-77-9** 97390-75-5
(water-developable photosensitive resin compns. contg. water-sol. ethylenic anionic compds., photoinitiator and, for fabrication of lithog. plates and **printed** circuits)

L32 ANSWER 7 OF 11 HCA COPYRIGHT 2003 ACS
100:28160 Photopolymerizable compositions and image-forming materials using these compositions. Kojima, Yasuo; Sasa, Nobumasa (Konishiroku Photo Industry Co., Ltd. , Japan). Eur. Pat. Appl. EP 89802 A1 19830928, 37 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1983-301450 19830316. PRIORITY: JP 1982-41689 19820318; JP 1982-41690 19820318.

GI



I

AB A water-developable photopolymeric compn. useful for prepn. of lithog. **printing** plates, resin letterpress **printing** plates, and resists comprises an ethylenically unsatd. compd. sol. in an org. solvent, an org. solvent-dispersible and water-insol. granular dispersion (a latex of a high mol. compd.), a polymn. initiator, and a solvent composed mainly of an org. solvent. Thus, an Al support (electropolished and silicated)

was coated with a compn. contg. a 10% dispersion of I (x:y:z = 4:48:48) in Me cellosolve 160, trimethylolpropane triacrylate 10, diisopropyl thioxanthane 2, dimethylaminobenzoic acid isoamyl ester 1, hydroquinone 0.01, and Me cellosolve 100 parts to give a 2 .mu. dry layer, imagewise exposed to a 1.5-kW metal halide lamp for 5 s at a distance of 80 cm, developed in H2O at 20.degree. for 10 s, cured, and used on a **printing** press to provide 20,000 good quality **prints**.

IT **9002-89-5 75009-71-1 88004-36-8 88004-37-9**
(photopolymeric photoimaging compn. contg., for **printing** plate fabrication, water development of images in)

RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

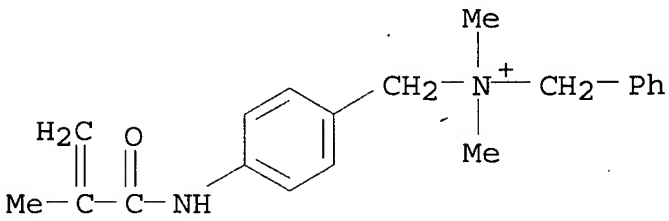
CRN 557-75-5
CMF C2 H4 O

$H_2C{=}CH{-}OH$

RN 75009-71-1 HCA
CN Benzenemethanaminium, N,N-dimethyl-4-[(2-methyl-1-oxo-2-propenyl)amino]-N-(phenylmethyl)-, chloride, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 75009-70-0
CMF C20 H25 N2 O . Cl



● Cl^-

CM 2

CRN 1321-74-0
CMF C10 H10

CCI IDS

2 [D1—CH═CH$_2$]

CM 3

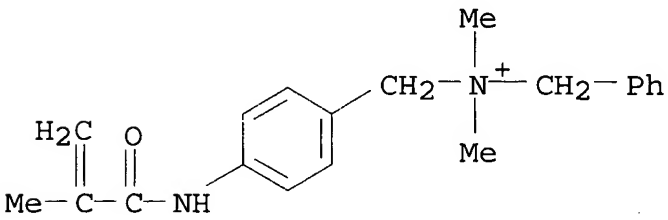
CRN 100-42-5
CMF C8 H8

H_2C═CH—Ph

RN 88004-36-8 HCA
CN Benzenemethanaminium, N,N-dimethyl-4-[(2-methyl-1-oxo-2-propenyl)amino]-N-(phenylmethyl)-, chloride, polymer with 1,4-diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

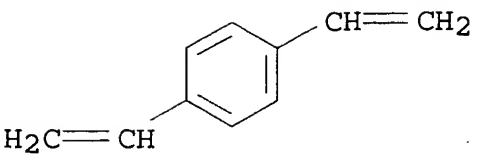
CRN 75009-70-0
CMF C20 H25 N2 O . Cl



● Cl^-

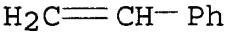
CM 2

CRN 105-06-6
CMF C10 H10



CM 3

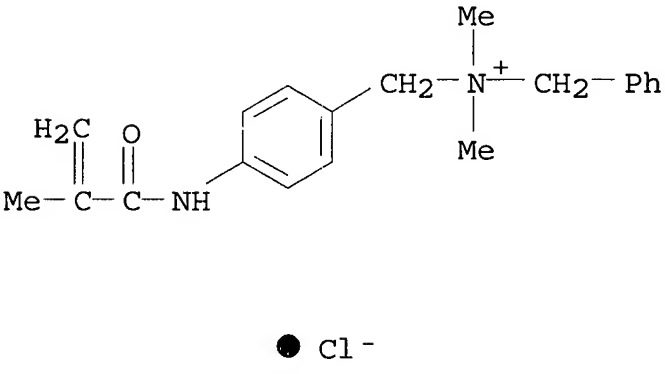
CRN 100-42-5
CMF C8 H8



RN 88004-37-9 HCA
CN Benzenemethanaminium, N,N-dimethyl-4-[(2-methyl-1-oxo-2-propenyl)amino]-N-(phenylmethyl)-, chloride, polymer with ethene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 75009-70-0
CMF C20 H25 N2 O . Cl



CM 2

CRN 100-42-5
CMF C8 H8

CM 3

CRN 74-85-1
CMF C2 H4

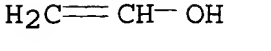
$H_2C{=}CH_2$

IC G03C001-68; G03C001-70; G03F007-10; G03F007-26; C08L033-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photopolymeric lithog plate; water development photopolymer **printing** plate
IT Lithographic plates
Printing plates
(photopolymeric compn. for prepn. of, water development of)
IT 123-31-9, uses and miscellaneous **9002-89-5** 9020-13-7 9050-31-1 15625-89-5 62886-89-9 65587-68-0 **75009-71-1** 75081-21-9 75300-99-1 **88004-36-8 88004-37-9** 88004-51-7 88004-52-8 88086-14-0
(photopolymeric photoimaging compn. contg., for **printing** plate fabrication, water development of images in)

L32 ANSWER 8 OF 11 HCA COPYRIGHT 2003 ACS
98:9993 Photographic **recording** material. Sato, Yuzuru; Nogami, Akira (Konishiroku Photo Industry Co., Ltd. , Japan). Ger. Offen. DE 3207827 A1 19820916, 27 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1982-3207827 19820304. PRIORITY: JP 1981-31936 19810307.
AB A material yielding images of high resoln., d., and contrast, suitable for lithog., carries on a metal, paper, or film support a 0.2-2 g/m2 pigment-binder sublayer and a 0.5-5 g/m2 photosensitive coating of a water-sol. diazo resin, preferably of the diazophenylamine-HCHO type, and also a water-sol. polymer contg. quaternary N or P atoms (US 3,709,690). Exposure to a Hg or Xe lamp causes decompn. of the diazo resin, and the decompn. product apparently reacts with the other polymer to give a water-insol. condensate. Wiping with water removes the unexposed areas of the polymers, including the sublayer. Thus, a dispersion of C 5, hydroxypropylmethyl cellulose phthalate 10, and Me glycol 50 parts was coated on a 100 .mu. polyester film to form a 2 .mu. (dry) layer and overcoated to give a 1.0 .mu. photosensitive layer with a mixt. of a 9:1 styrene-N,N,N-trimethyl-N-vinylbenzylammonium chloride copolymer as 10% soln. in H2O-EtOH 3:1 80 and a 10% aq. soln. of a com. diazo resin 20 parts. After keeping the film at 55.degree. for 12 h, it was exposed imagewise and developed by immersion in water of 20.degree. for 2 min and wiping with a sponge. The black image had a resoln. of 80 lines/mm, and its surface was water-repellent and scratch-resistant.
IT **9002-89-5 69877-99-2 75009-71-1**
(photoimaging material contg.)
RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

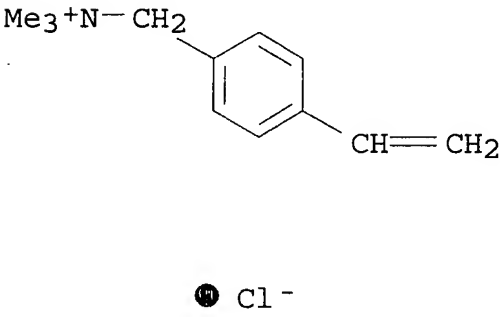
CRN 557-75-5
CMF C2 H4 O



RN 69877-99-2 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

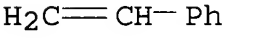
CM 1

CRN 7538-38-7
CMF C12 H18 N . Cl



CM 2

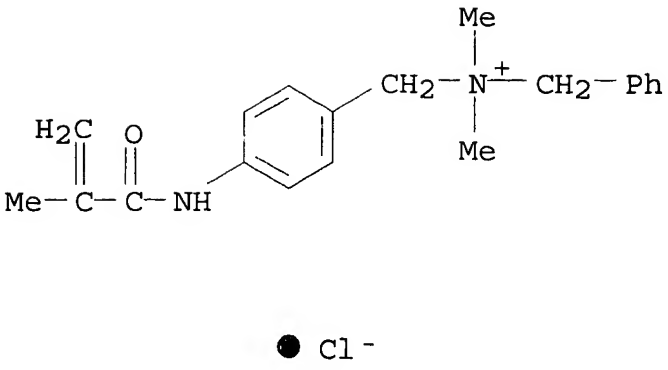
CRN 100-42-5
CMF C8 H8



RN 75009-71-1 HCA
CN Benzenemethanaminium, N,N-dimethyl-4-[(2-methyl-1-oxo-2-propenyl)amino]-N-(phenylmethyl)-, chloride, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

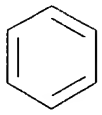
CM 1

CRN 75009-70-0
CMF C20 H25 N2 O . Cl



CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS



2 [D1—CH═CH$_2$]

CM 3

CRN 100-42-5
CMF C8 H8

H_2C═CH—Ph

IC G03C001-71; G03C001-52; G03C001-84; G03F007-08
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 57-55-6, uses and miscellaneous **9002-89-5** 9050-31-1
25767-47-9 **69877-99-2 75009-71-1** 83919-74-8
(photoimaging material contg.)

L32 ANSWER 9 OF 11 HCA COPYRIGHT 2003 ACS
97:191269 Electrochromic **recording** paper. (Canon K. K., Japan). Jpn. Tokkyo Koho JP 57009958 B4 19820224 Showa, 8 pp.

(Japanese). CODEN: JAXXAD. APPLICATION: JP 1974-27849 19740311.

AB Electrorecording materials are described which contain an electrochromic material exhibiting a memory effect and a polarity dependence, and a zeolite type compd. Thus, WO3, Mol. Sieve 13X, and **poly(vinyl alc.)** were mixed in EtOH and coated on a conductive paper support to give an electrochromic **recording** sheet.

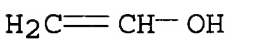
IT **9002-89-5 26780-21-2**
(electrochromic **recording** paper contg.)

RN 9002-89-5 HCA

CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

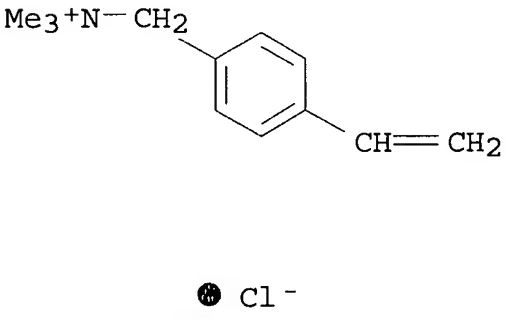


RN 26780-21-2 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 7538-38-7
CMF C12 H18 N . Cl



IC B41M005-20

ICA G11B007-24; G11C013-04

CC 74-9 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **recording** paper electrochromic; zeolite electrorecording paper

IT **Recording** materials
(elec., contg. zeolite type compd. and electrochromic substances)

IT 57-11-4, uses and miscellaneous 64-19-7, uses and miscellaneous 471-34-1, uses and miscellaneous 497-19-8, uses and miscellaneous 1304-28-5, uses and miscellaneous 1304-76-3, uses and

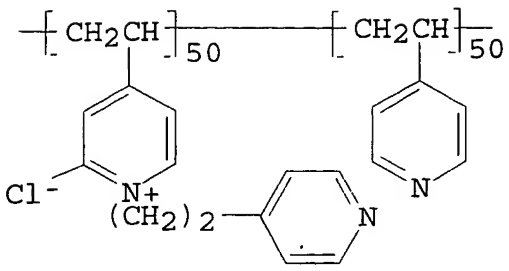
miscellaneous 1306-19-0, uses and miscellaneous 1308-04-9 1308-38-9, uses and miscellaneous 1309-37-1, uses and miscellaneous 1309-38-2, uses and miscellaneous 1309-48-4, uses and miscellaneous 1309-60-0 1309-64-4, uses and miscellaneous 1313-13-9, uses and miscellaneous 1313-27-5, uses and miscellaneous 1313-96-8 1313-99-1, uses and miscellaneous 1314-06-3 1314-13-2, uses and miscellaneous 1314-27-8 1314-35-8, uses and miscellaneous 1314-61-0 1314-62-1, uses and miscellaneous 1314-68-7 1314-87-0 1314-95-0 1317-36-8, uses and miscellaneous 1317-38-0, uses and miscellaneous 1317-42-6 1318-10-1 1318-95-2 1343-93-7 1344-09-8 1344-48-5 1345-04-6 7236-42-2 7446-07-3 7447-39-4, uses and miscellaneous 7447-40-7, uses and miscellaneous 7631-95-0 7631-99-4, uses and miscellaneous 7646-85-7, uses and miscellaneous 7647-01-0, uses and miscellaneous 7647-14-5, uses and miscellaneous 7647-15-6, uses and miscellaneous 7664-93-9, uses and miscellaneous 7705-08-0, uses and miscellaneous 7718-54-9, uses and miscellaneous 7758-89-6 7758-95-4 7758-98-7, uses and miscellaneous 7761-88-8, uses and miscellaneous 7774-29-0 7779-88-6 7782-91-4 7783-00-8 7783-03-1 7783-08-6 7783-40-6 7783-90-6, uses and miscellaneous 7783-96-2 7785-23-1 7786-30-3, uses and miscellaneous 7787-47-5 7787-60-2 7789-40-4 7789-47-1 7789-75-5, uses and miscellaneous 7790-30-9 7790-69-4 7790-86-5 7791-12-0 7803-55-6 7803-68-1 **9002-89-5** 9003-05-8 9003-39-8 10025-82-8 10026-12-7 10042-76-9 10049-23-7 10097-28-6 10099-74-8 10101-63-0 10377-66-9 10421-48-4 12002-97-0 12014-74-3 12024-08-7 12024-10-1 12024-21-4 12026-66-3 12027-12-2 12030-14-7 12036-01-0 12038-20-9 12060-00-3D, solid solns. with lead zirconate 12060-01-4D, solid solns. with lead titanate 12068-85-8 12125-22-3 12136-26-4 12137-20-1 12137-42-7 12137-99-4 12138-09-9 12173-10-3 12173-98-7 12251-23-9 12251-32-0 13106-76-8 13138-45-9 13446-49-6 13453-10-6 13463-67-7, uses and miscellaneous 13520-62-2 18282-10-5 18820-29-6 20338-08-3 20816-12-0 20820-34-2 20909-44-8 21908-53-2 25053-27-4 25320-22-3 25322-68-3 26161-33-1 26338-45-4 **26780-21-2** 28826-65-5 38056-78-9 51429-77-7 54452-17-4 62744-35-8 63310-83-8 66457-86-1 78723-25-8 82063-34-1 82063-35-2

(electrochromic **recording** paper contg.)

L32 ANSWER 10 OF 11 HCA COPYRIGHT 2003 ACS

88:180243 Color diffusion transfer material. Sato, Yuzuru; Asano, Masao; Ishihara, Masao; Terada, Sadatugu (Konishiroku Photo Industry Co., Ltd., Japan). Ger. Offen. DE 2728557 19771229, 70 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2728557 19770624.

GI



I

AB A color photog. diffusion-transfer material is described that is composed of a light-sensitive Ag halide **recording** material and an image-receptor material contg. as mordant a polymer from CH2:CR1ZNR2R3 or CH2:CR1ZR4 (R1 = H or Me; R2, R3 = alkyl, Ph, aralkyl, or together with the N atom form a 5- or 6-membered heterocyclic ring, R4 = a 5- or 6-membered heterocyclic ring) or a quaternary salt thereof. Thus, a color diffusion-transfer material was exposed and then contacted with an image-receptor sheet composed of a transparent poly(ethylene terephthalate) support coated with 100 g of an aq. soln. contg. 3 wt % of a mordant having the structure I, 6 wt % **poly(vinyl alc.)**, and polyethylene glycol nonylphenyl ether 0.1 g to give a 5 .mu. (dry) thick layer. The resulting color image had a yellow, magenta, and cyan Dmax of 1.46, 1,58, and 1.73, resp., vs. 1.18, 1.28, and 1.25, resp. for a control contg. poly(4-vinylpyridine).

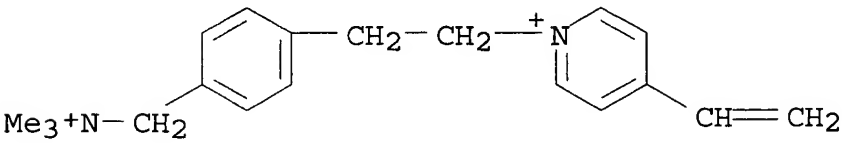
IT **66348-10-5 66348-12-7 66456-22-2**
(mordant, for color photog. films)

RN 66348-10-5 HCA

CN Pyridinium, 4-ethenyl-1-[2-[4-[(trimethylammonio)methyl]phenyl]ethyl]-, dichloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 66348-09-2
CMF C19 H26 N2 . 2 Cl



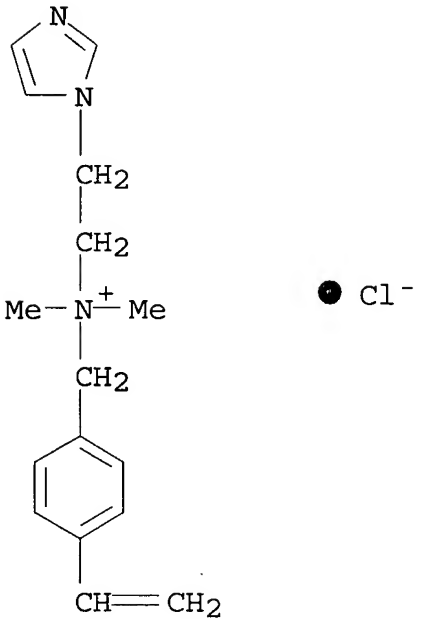
● 2 Cl⁻

RN 66348-12-7 HCA

CN 1H-Imidazole-1-ethanaminium, N-[(4-ethenylphenyl)methyl]-N,N-dimethyl-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

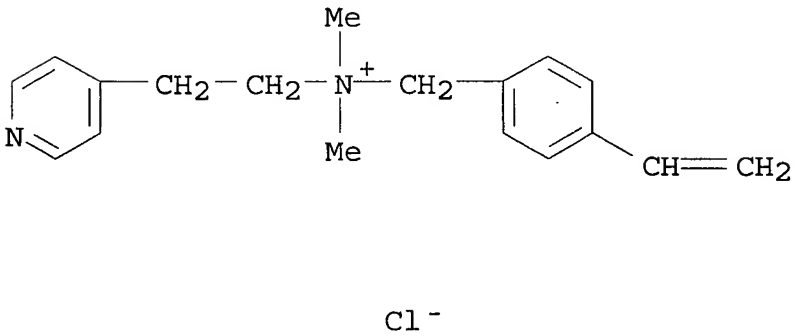
CRN 66348-11-6
CMF C16 H22 N3 . Cl



RN 66456-22-2 HCA
CN 4-Pyridineethanaminium, N-[(4-ethenylphenyl)methyl]-N,N-dimethyl-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 66456-21-1
CMF C18 H23 N2 . Cl



IC G03C005-54
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic

Processes)
IT 66348-05-8 66348-06-9 66348-08-1 **66348-10-5**
66348-12-7 66456-20-0 **66456-22-2**
(mordant, for color photog. films)

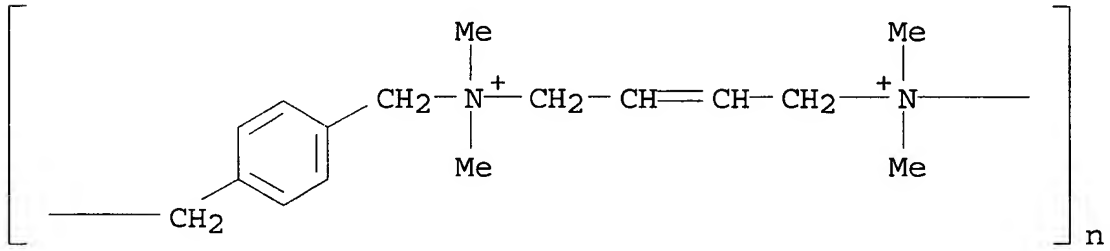
L32 ANSWER 11 OF 11 HCA COPYRIGHT 2003 ACS
84:137497 Electroconductive resins. Markhart, Albert H.; Santer, James O. (Monsanto Co., USA). U.S. US 3932564 19760113, 8 pp. Continuation-in-part of U.S. 3,825,511. (English). CODEN: USXXAM. APPLICATION: US 1974-486040 19740705.
AB Elec. conductive coatings for paper are prepd. from copolymers of 1,4-dihalo-2-alkenes and bis(tertiary amines), mixed with hydroxy group-contg. polymers for increased organic solvent hold-out. Thus, paper coated with 1.71 lb/3000 ft2 of a soln. contg. **poly(vinyl alc.)** [**9002-89-5**] and 1,3-bis(dimethylamino)-2-hydroxypropane-1,4-dichloro-2-butene copolymer [51329-92-1] (prepd. from the corresponding monomers) exhibited surface resistivity 2.0 .times. 1010 (1.5 .times. 108) .OMEGA. at 20% (50%) relative humidity (ASTM D-257-66).
IT **9002-89-5**
(elec. conductive coatings, contg. ionene polymers, for paper)
RN 9002-89-5 HCA
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

$H_2C{=}CH{-}OH$

IT **57498-43-8**
(electroconductive coatings, for paper)
RN 57498-43-8 HCA
CN Poly[(dimethyliminio)-2-butene-1,4-diyl(dimethyliminio)methylene-1,4-phenylenemethylene dichloride] (9CI) (CA INDEX NAME)



2 Cl^-

IC C08F
NCL 260899000
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 42
IT Coating materials
(ionene polymers, for electrog. **printing** paper)
IT Electrography
(papers, coatings for, ionene **polymers-poly**(**vinyl alc**.) as)
IT **9002-89-5** 9003-20-7 9005-27-0
(elec. conductive coatings, contg. ionene polymers, for paper)
IT 51329-92-1 52004-11-2 52004-12-3 52004-79-2 52004-80-5
57498-43-8 57498-44-9 57498-45-0 57502-03-1
57502-05-3 57502-06-4 57502-08-6 57502-09-7 57502-10-0
57571-33-2 57571-35-4 58814-27-0
(electroconductive coatings, for paper)